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COMPANY.

Southern Pacific Company

(ATLANTIC SYSTEM)

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INTRODUCTORY.

A VERY important question for each of us to answer, is, where shall I locate my home? A good location means prosperity. A bad location means adversity. Please read carefully the very full description of Southwest Louisiana along the line of the Southern Pacific Railroad, before deciding this great question. Is it accessible? Is it healthy? Can I live easily? Can I find good society, schools, churches? Are there more or less advantages and disadvantages than elsewhere? The Southern Pacific Railroad furnishes good and fast transportation through this immense prairie and timber country. More than 10,000 Northern people have located homes here, and take this means of reaching you with an invitation to come and help them develop the best partly improved field in America. We will give you in detail the experiences of our best fruit experts, the best breeders and stock farmers, the best rice and sugar cane growers, and the best general farmers. A careful reading of this book will give you the best opinion of the best men in the country, located on the line of the Southern Pacific in Louisiana; men of experience North and South, and experts in the business which they describe, much better qualified to judge of comparative values, than men who have never lived North and South. You must summer and winter in a country to know it. The value of the country is no experiment, its possibilities, also, are great. Only look at what has been done here in ten years, in one industry, rice, by the Iowa Colony who introduced the twine-binding harvester only seven years ago. Now three thousand are in use, doing the work in harvest time (three months) of 100,000 men. The shipments over our Southern Pacific Railroad then two million pounds, 1886 and 1887; now three hundred millions, 1892 and 1893; with an increase of thirty-nine million pounds in December, 1892, over December, 1891. Every branch of agricultural industry has largely increased. Vast numbers of fruit trees have been planted. Stock has been improved. Large quantities of hay have been cured and sent to market, and now attention has been turned to the sugar industry, with every prospect of success. This book is made and distributed at great expense by the Southern Pacific Railroad Company, that its patrons may be thoroughly posted about the country along its line, to which they invite immigration, and where there are at least ten thousand Northern settlers who have been brought there by our agents, and whose history is a marvel of success. Read it carefully and you will act understandingly.



SUGAR CANE FIELD, CALCASIEU PARISH, LA.

Southwestern Louisiana

THE PRODUCTION OF SUGAR IN LOUISIANA.

BY PROF. S. A. KNAPP, LAKE CHARLES, LA.

That the lands of Louisiana are well suited to the raising of sugar cane has been demonstrated for more than one hundred years. A brief mention of methods may be interesting to the non-producer. The seed bed for cane is generally prepared by sowing cow peas on the land the season preceding planting. The last of August, when the peavines are in full vigor, they are split with a double mould-board plow, six or seven feet apart, as the planter deems best. At the next round the plow catches the furrow and gives it a second roll; this is continued until furrows meet. Thus, all the peas on six or seven feet of land across the field are in each row and covered with soil. At any time after the first of October these rows may be opened with a plow and two continuous lines of cane stalks placed in the bottom of the furrow. The cane is then covered and a roller passed over the land. Planting may be done from the first of October till February. The general plan of cultivation differs little from corn, and continues from February till into July, when the cane is supposed to shade the land. Cotton-seed meal is generally used as a fertilizer. One planting produces cane two or three years, according to the strength of soil and the conditions of the winters. Harvesting continues from October till January.

This may be said of cane:

1. It is among the safest of farm crops.
2. It furnishes employment nearly the whole year.
3. It yields the largest income per acre.

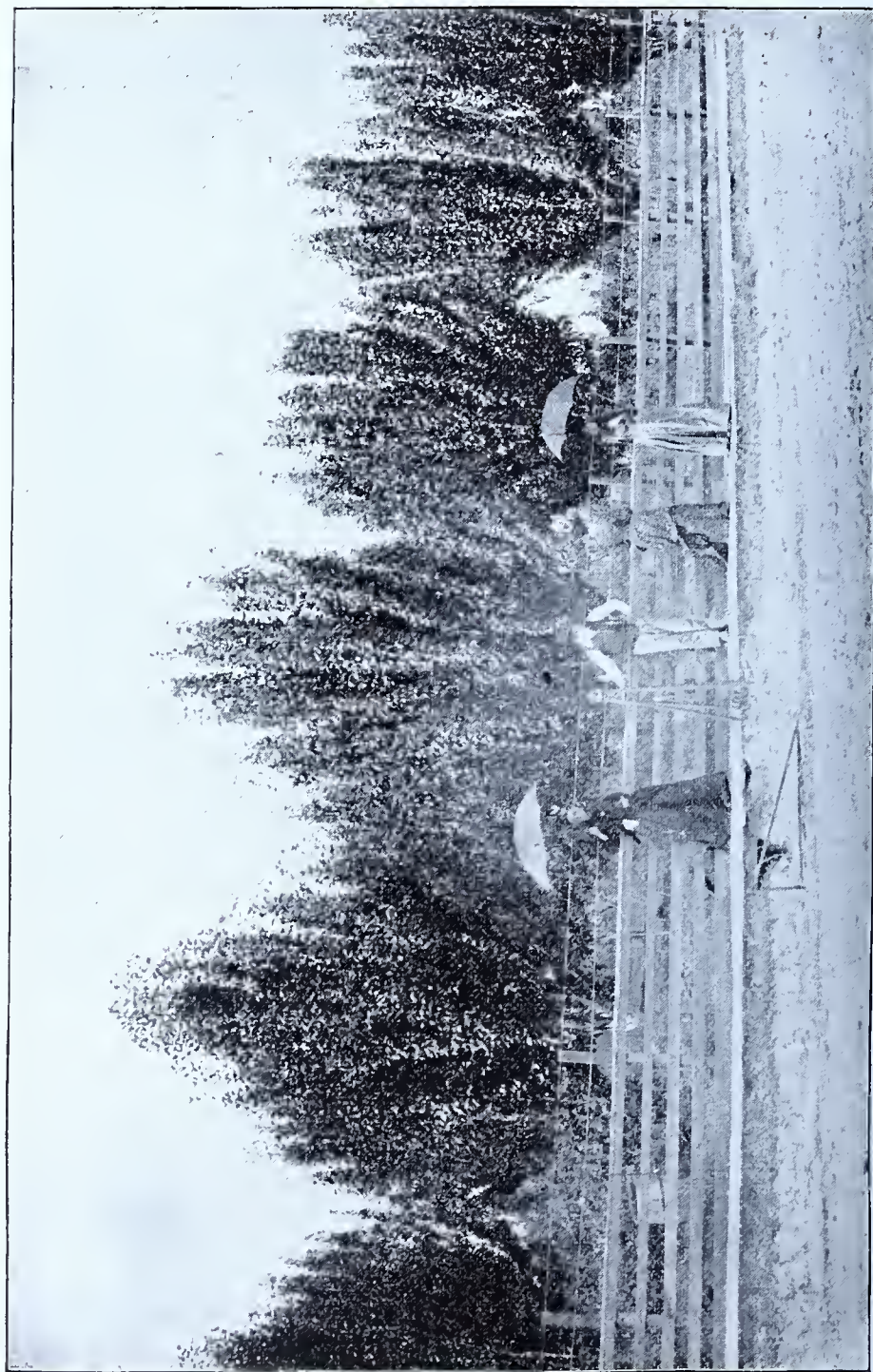
The average yield of cane per acre, where properly cultivated and fertilized, is seldom less than twenty tons, and of stubble cane (second year) fifteen tons, or thirty-five tons for two years, which, at present prices would be worth \$140. We estimate cost of

Seed cane, per acre.....	\$16.00
Preparation of land, per acre	2.00
Planting, per acre.....	4.00
Cultivation, per acre.....	8.00
Fertilizers, per acre.....	4.00
Harvesting, per acre.....	10.00
Total, - - - - -	\$44.00

The above are liberal estimates, and should be reduced considerably. The second year the total cost would be \$22, as seed

cane, preparation, and planting would be omitted. The total cost for two years would be \$66, leaving a profit of \$74 per acre for two years, or \$37 per year. This estimate is based upon hiring the work done under careful supervision. One man could easily superintend one or two hundred acres. Should cane fall considerably below \$4 per ton it would still be a profitable crop. It is estimated that cane can be profitably produced at \$2.50 per ton by small farmers who do their own work and are out of debt. Cane cultivation is so well adapted to the farm that it would become general in all the Gulf States were it not for the serious problems connected with the extraction of the juice and manufacture of sugar. The old-time plantation mill with fifty or sixty per cent. extraction and open kettle boiling could not compete in the markets of the world with Germany and Cuba. To do this it was necessary for the planters of Louisiana to establish the central factory, with its ponderous and expensive machinery and its complete railway system; \$250,000 is necessary to the building and equipment of a first-class central factory. Such a sum is out of the reach of the average planter; hence he has been trying to get along with half or quarter equipment, or if the factory was secured it took several years before adjoining planters could change to cane farming and furnish a full supply for the factory. Few industries in the United States, however, have made more rapid advancement in the last ten years than the manufacture of sugar. It has now been reduced to a complete science. The results are exact and very satisfactory. The factory of the future must turn out at least two hundred pounds of mercantile sugar per ton of cane. The labor and fuel must be a minimum. The success of the large central factory is assured in Louisiana, paying the planter a liberal sum for his cane and netting a most satisfactory per cent. on the capital invested. The next problem in sugar making is to discover a less expensive method of extracting the juice of cane and yet secure a high per cent. of the saccharine matter. Nor is this so far from solution as may at first appear. It has been found that by cutting and slicing the cane the strain upon the first mill was greatly reduced, and that by using water between the mills the extraction of saccharine matter was increased. The small farmer remote from any central factory may then cut and slice his cane with a simple machine, then pass the cane through several sets of rollers—possibly three small three-roller mills—using water on the bagasse after each pressure

and he will secure a high extraction of sacharine matter. If fuel is abundant as in most portions of Louisiana boiling may be done by open kettle, as in the olden time; at least, molasses can be made and shipped in tanks or barrels to the refinery. Hundreds of planters have made the mistake of throwing aside their small mills, when the best results could have been secured by increasing the number of mills, that is, by placing additional small mills behind the one in use. Down to the point of making molasses there is no great loss (if any) in open kettle boiling, except that the use of fuel is not economical; but in many portions of Louisiana fuel is so cheap that a small loss in economic methods will not affect the general problem seriously. If the planter will work his cane upon this plan his net profits will be greatly increased. Sugar planting is one of the most attractive kinds of farming. The crop is safe; the prices fluctuate but little, and the markets readily absorb the product. As soon as the old semi-feudal plantations are broken up and the small, thrifty farmer produces the cane, sending it to the central factory or manufacturing it at home upon improved methods, the whole sugar industry will be buoyant. To summarize, it may be stated the old methods of producing cane and manufacturing sugar used in the period of slavery, when labor was scarcely considered, prevailed generally in Louisiana till within the past five years. In the past five years there has been an earnest effort to introduce the most approved modern machinery in the factory and better the methods of production on the plantation. In the next five years, by the inevitable force of events, we shall see many of the old plantations broken up into small farms and most of the sugar cane of Louisiana produced by independent farmers, selling the cane either to the large central factory or manufacturing it upon the home place with the same labor that produced it. When this shall be accomplished there will be an era of prosperity in Louisiana never before witnessed in a purely agricultural community, for there is no other general farm crop which will produce annually \$150 per acre, spot cash, and this without other expense than labor—where the manufacture is at home. It is a crop well suited to the genius of the American farmer, for it can be handled entirely by farm machinery and is certain. It furnishes labor the whole year, and brings large returns. Four thousand pounds of sugar per acre is not unusual from well-cultivated tracts of cane. The average farmer can realize thirty tons per acre from



PEAR ORCHARD, JENNINGS, LA.

land in cane if it be prepared and handled with care. He can manufacture it with improved small machinery and obtain a gross income of \$150 to \$200 per acre. Thus, without detriment to his general farming, the owner of 160 acres could plant twenty acres of cane and obtain an income of three to four thousand dollars.

FRUIT GROWING.

WHAT FRUIT GROWING WILL DO FOR SOUTHWESTERN LOUISIANA.

T. Jay Lacy, a fruit grower in Southwestern Louisiana of over thirty years' practical experience, says in a letter published herein that fruit growing here is very profitable, giving a great variety of fruits in his list. He has used local markets mainly, but now that direct lines of railroads have been opened to our best markets North, we may well expect much better results. Again, there is more economy in car-load lots. We want more fruit growers, for whom there are great inducements. The Southern fruits generally have excellent keeping qualities. The experimental stage is passing away, and the successful varieties are becoming well known. Intelligent local nurserymen will give you on application a list of fruits adapted to soil and climate of your particular locality. With the introduction of the hardy budded varieties of oranges, the area of successful production has been widened to include the prairie region. These orange trees generally bear the second year from setting out. The Creole or Louisiana bears after ten years. The budded oranges bring the highest price in market. Another very important fact is that detached groves on the prairie will be less liable to disease and insect pests than on old orange ground or in the vicinity of other orchards. Another valuable feature is the fact of continuous blooming in spring, so that if the early bloom is caught by the frost, a second or third blooming will be successful. Peach growing is a serious question for experts. Can we beat the curculio? The trees do well. Open winters, late frosts, wet seasons and curculio are all difficulties to be overcome. We always have more or less peaches. Plums of certain varieties and of the best do well, but must have careful handling to yield a profit. Pears are receiving more attention than any other fruit. Large orchards are and have been planted all over Southwestern Louisiana. At Jennings fully 10,000 pear trees have been put in orchards, Leconte and Keifer leading all others. They are considered a success along the line of the Southern Pacific Railroad, through Louisiana and Texas. Dew-

berries, blackberries and strawberries are very successful. The mayhaw, growing wild and in great abundance, rivals the guava for jelly; and the fig, queen of fruits, is most prolific and valuable of all. The best variety for Louisiana is the native celeste, or purple sugar fig, the easiest to propagate, surest to grow, hardiest, most prolific, and best quality, best size, for the best uses that can be made of the fig. No pruning, early bearing, sweet as honey, good for man or beast. It seems to me to be a proper emblem of the tree of life (or the tree itself), escaped from the garden, of which if a man eat he should live forever. Figs can be grown in Southwestern Louisiana at one cent a pound. The average yield is 500 to 1,000 pounds. Average price for canning, four cents. 100 trees per acre will bear at ten years old 500 pounds each, making 50,000 pounds at four cents—\$2,000 per acre, or \$500 per acre at one cent a pound. Celeste figs ripen first of July, and you can gather ripe figs for nearly two months from every tree, as once figs always figs, no off years, and the tree lives to be seventy-five or one hundred years old. The older the tree, the sweeter the fruit. The fig tree has the form of the cabbage, the size of the apple, is inclined to spread from early killing by freezing. Let her spread! You get more fruit, with less trouble to pick. It never blooms, puts out leaves and fruit late. "When the fig tree puts forth her leaves, then know that summer is nigh." A few figs put out early, called blossom figs, generally killed by frost. The main crop comes with the leaves and after—just pop out through the bark at base of the leaf like a bud, grow slowly until about ripening, when, presto change! they come out like popping corn, the sweetest, most wholesome morsel in the gift of the gods. There is a mistaken notion that fig leaves are a proper material for clothing in tropical climates. The fact is there are so many excellent fiber plants South that it would be invidious to make any one prominent.

S. L. CARY, Esq.

Dear Sir:—Fruit growing in Southwest Louisiana is very profitable. Northern fruits do not succeed here, but Chinese and Japanese varieties are a wonder to behold. Chinese pears may be grown here as bountifully as apples in the North, and for size and quality cannot be surpassed anywhere in the world, and if I should tell you of the marvelous crops I grow here, you would think it more like a fairy story than a reality. Japanese plums

grow here as large as a peach, and of such exquisite flavor that I am now throwing away all of my American and European varieties, as they are worthless in comparison with the Japanese varieties. Many kinds of Japanese persimmons are grown here, which are as large as apples and without seeds. We cut them open and eat out the meat with a spoon, as you would a custard. They keep well, ship well, and will always sell for a good price, as they can not be grown very far north. Many varieties of oranges are grown in Southwest Louisiana. The Louisiana orange, the mandarine, and other tender varieties grow well near the Gulf, while the Japanese varieties, being more hardy, grow further north. They will stand fifteen degrees above zero. Of these oranges there are many varieties. I prefer the Oonshiu and Kin Kan to all others. Their fine flavor and abundant bearing will recommend them wherever known, and, like all the Japanese fruits in this climate, the trees bear when very young. Many varieties of grapes grow here; I have found the Scuppernong the most profitable, as it bears abundantly and needs no pruning. Strawberries may now be made very profitable, since we have a direct railroad to the Northern markets. Besides the foregoing, there are many other fruits that may be grown here, for home use and for market, such as figs, loquats, gournii, Japanese chestnuts, pecans, etc. In conclusion I wish to say, that with Chinese and Japanese fruits I have made good crops with ordinary culture, which always sold for high prices, and I see no reason why others may not do the same.

Yours truly,

T. JAY LACY,

Mount Hope Nursery, Washington, La.

S. L. CARY, Esq.

Dear Sir:—I came to Louisiana seven years ago with the purpose, chiefly, of growing oranges, and at this date am well satisfied with the venture. At the present time I have 2,000 trees growing in orchard, 500 of them just coming into bearing. Three years ago last April I set out 500 budded trees. Two years later they bore from ten to one hundred oranges to the tree. Next year I expect them to bear enough to pay me for all the expense I have been to in bringing them to their present state. During the present winter I will set 2,000 more budded trees. At eight years old, with proper care and cultivation, they will bear from 1,000 to 2,000 oranges to the tree. At the present low price of oranges this will bring me \$800 per acre, with but little more care

and expense than an apple or peach orchard would require. At Lake Side and vicinity 15,000 orange trees have been set during the last season, and as many more will be planted this season. One grove alone will contain 10,000 trees by the end of the present winter. One of my neighbors has a grove set forty-seven years ago, in which some of the trees measure two feet in diameter and sometimes bear as many as 8,000 oranges to the tree. We have another fruit at Lake Side which is just beginning to attract notice, and that is the guava. Its special use is for jelly, which is the finest in the world. It grows and bears abundantly in this climate, and is destined soon to be found on every fruit grower's place. I have also on my place fifty lemon trees, many of which fruited the past year, and the fruit is of excellent quality. Back from the lake a number of fine pear orchards are to be seen. The few old pear trees in the neighborhood bear well and are long lived. Peach trees also grow well and continue bearing for twenty or thirty years. Until recently only selected seedlings have been grown. Three years ago last spring I set out twenty honey peach trees. They have made a splendid growth, and last year and this they bore heavy crops of fine fruit, which ripens in June. Fruit growing is in its infancy at Lake Side, but we can see what may be done by looking at the few old groves and orchards around us. Only a trip around the lake shore is needed to convince the most skeptical of the possibilities of what may be accomplished in the line of citrus and other sub-tropical fruits at Lake Side. Very truly yours,

E. I. HALL, M. D., Lake Side, La.

S. L. CARY. AUDUBON PARK, NEW ORLEANS, LA., March 17, 1893.

My Dear Sir:—You desire information relative to the hardier varieties of oranges. The past winter has been exceptionally fine for testing the hardy qualities of the different varieties of citrus fruits. In our experimental grove here there were over 125 varieties of citrus fruits, covering every obtainable variety of orange, lemon, lime, pomelo, shaddock, citron and kumquat. These trees were from one to three years old and included seedlings and budded stock. For the latter, the sweet, bitter sweet and sour orange, the rough lemon, the grape fruit and the *citrus trifoliata* were used. The winter has been intensely severe, the thermometer going down, on December 27 and 28, to 21° Fahrenheit, and remaining near this point for forty-eight hours. This cold spell was the first of the season and caught the trees in

full sap. The winter has been more or less cold and chilly ever since. Now that the spring has opened and our trees are in full bloom, the damage from frost can be accurately estimated. The following are the results: The limes are killed; many of the lemons and citrons are dead. A few shaddocks survive, while the pomelos, oranges and kumquats are very generally living. Of the one hundred varieties of oranges less than five per cent. are killed, and these invariably the unhealthy specimens which had recently received our attention. Many varieties suffered defoliation, but have, with the opening of the spring, assumed full leaf again. The satsumas, the tangerines and mandarines were not hurt in the least. In fact, the satsumas did not lose a leaf, and all of them to-day are in full bloom. These hardier varieties, grafted or budded on the hardier stocks, can be grown anywhere in South Louisiana, and I anticipate the day as not far distant when the satsuma will be found growing around every home in the Gulf States. For full particulars concerning oranges, see Special Bulletin, recently issued by this Station.

In regard to sugar cane in your country, it may be asserted that its successful cultivation has passed beyond the experimental stage and has become *un fait accompli*. The success of the Calcasieu Sugar Factory, and the easy culture of your soil, together with the superior richness in sucrose of your cane, all conspire to confirm the opinion, long since expressed, that your section of the State would some day become a veritable "sugar-bowl."

Of the prospects of successfully growing tobacco in your section, I cannot positively speak. North of you, in the pine hills, the finest yellow leaf has been successfully and profitably grown, and the area devoted to this crop is annually increasing. Soon North Louisiana will become one of the tobacco sections of the United States. I see no reason why your prairie section should not grow tobacco equally as bright and valuable as North Louisiana, and I hope proper experiments to test this question will soon be made. A Tobacco Bulletin, No. 20, covering all the questions and information as regards this plant, has recently been issued by the North Louisiana Experiment Station, and may be had by addressing this office.

Trusting you may meet with the success that your persistent efforts in a most worthy cause so justly merit, I am, with considerations of high regard,

Yours truly,

WILLIAM C. STUBBS,
Director Louisiana Sugar Experiment Station.



ORANGE GROVE, CAMERON PARISH, LA.

TRUCK FARMING.

Truck farming, according to the census of 1890, is most remunerating, paying an average of \$150 per acre, and over \$250 for every man, woman and child employed in the business. The very early and late season, without frost, give to our products a peculiar value. For instance, it costs no more to grow a strawberry in February that sells at fifty cents to one dollar a quart, than it does to grow strawberries in June that sell at five to ten cents per quart. Climate is of great value, but costs you nothing, but its operations are often very expensive or the reverse. Truck raised South has good keeping qualities, can be shipped long distances. One hundred miles nearer the Gulf of Mexico may give you thirty days earlier products, while the time for transportation will be only a matter of two or three hours. We want expert truckmen by the hundred at all our villages, that cars may be loaded at any one point. The advantages of truck farming over general farming are very many. It requires less land; it is much easier to get help, and you do not need to keep laborers when not needed. You need not burden you wife with the care of help. Your location is in or near town. Schools, churches, lectures, and the circus, doctors, stores, shops, are all near by. Your property, kept in order, is always attractive and salable. Your business is surer than the fruit grower's, better than the farmer's, as good as the bank.

CLIMATE.

We give you an address given by Capt. R. E. Kerkam, U. S. Signal Corps Director, Louisiana Weather Service, at a convention of Northern residents of Louisiana, held at New Orleans, August 7 and 8, 1888. Then read and learn the climates of California, Florida, and earth's most favored regions, and Southwestern Louisiana will discount them all. You ask, how excel California? I answer, we have no "wet and dry" season. How about Florida? I answer, we have no sand. How about Mexico and South America? We have as good climate, backed by a stable government. We have a climate and soil best adapted to the largest paying field crops, sugar cane and rice, and adapted to the largest variety of paying products grown anywhere.

Mr. Chairman, Ladies and Gentlemen:—It affords me pleasure as a representative of the National Signal Service, to be able to bring the work of the Service before this convention in a practi-

cal manner, and to prove by official records that the climate of Louisiana is more agreeable the year 'round than that of any other section in the United States. To do this a series of comparisons will be necessary, and to avoid a lengthy dissertation on the subject, by States, we will consider only the sections embraced by the extreme Northwest, the Upper Mississippi and Missouri Valleys, and the Pacific Coast Region.

These sections have been taken for comparison, not because they make Louisiana's claims stronger for the immigrant, but because they include a greater acreage of farming lands and are considered the best in the Union. Should a doubt exist in any mind that a choice was made, it can readily be dispelled by a glance at the weather map displayed here.

Considering the extreme degree of heat, the normal mean maximum temperature, for the hottest month, July, we find from Signal Service records that the section of country from southern Illinois and southeastern Missouri to central Minnesota has an average of 84° , with an average of the lowest temperatures for the same month of 66° , making the average daily range of temperature 18° . The same figures for the same month for the section of country from southwestern Missouri to central Dakota are, average highest, 85° , average lowest, 63° , making the average daily range 22° . For the section of country embracing northern Minnesota and northern Dakota, we find an average highest temperature of 78° , an average lowest of 55° , making an average daily range of 23° . For Louisiana, for the same month, the average highest was 91° , average lowest 74° , making an average daily range of 17° .

Considering the coldest month: It is found that the first named section (the Upper Mississippi Valley) had an average highest temperature for January of 31° , and an average lowest of 13° , making an average daily range of 18° . For the second section (the Missouri Valley) for the month of January has an average highest temperature of 25° , an average lowest of 3° , with an average daily range of temperature of 22° . The third named section (the extreme Northwest) has an average highest temperature for January of 9° , an average lowest of 13° below zero, making the average daily range of temperature 22° . Louisiana has for the same month an average highest temperature of 59° , an average lowest of 44° , making the average daily range for the month 15° .

To consider the highest and lowest temperatures recorded on any day at any of the stations in the various districts:

It is found that the maximum temperature for the Mississippi Valley for summer is 103° , recorded at Des Moines, Iowa, and at Cairo, Ill. The lowest temperature for that section in winter is recorded as 43° below zero, at La Crosse, Wis., or an absolute range of temperature of 146° . The highest temperature on record for the Missouri Valley is 111° , recorded at Fort Sully, in South Dakota. The lowest temperature for that section is 42° below zero, at Fort Bennett in South Dakota, making the absolute range of temperature for the Missouri Valley 153° . The third section, (the extreme Northwest), has a highest temperature of 107° , recorded at Fort Buford, North Dakota, and a lowest temperature of 59° below zero, recorded at Pembina, North Dakota, making the absolute range of temperature for the extreme Northwest 166° . The highest temperature on record for northern Louisiana is 107° recorded at Shreveport, and the highest on record for southern Louisiana is 97° at New Orleans. The lowest temperature on record for northern Louisiana is 6° at Shreveport, and the lowest for southern Louisiana is 20° at New Orleans, making the absolute range of temperature for the northern part of the State 101° , and for the southern part 77° , the latter range being less than one-half of the range of either of the three sections quoted.

To compare the mean relative humidity of the various sections: From a record covering from 1870 to 1885, the mean annual relative humidity of the Upper Mississippi Valley is computed to be 69 per cent., the mean for the Missouri Valley is 69 per cent., the mean for the extreme Northwest is 74 per cent., and the mean for Louisiana is 71 per cent., being but two per cent. above the average for the two first-named and three per cent. below the latter. The highest mean monthly during the year in Louisiana, is but 74 per cent., whereas the highest in either of the other sections is 91 per cent.

The rainfall of the sections under consideration is as follows: The average annual for the Upper Mississippi Valley is 39 inches, the greater part of it falling during the summer months. The average for the Missouri Valley is 29 inches, the greater part of which falls in May, June and July. The average for the extreme Northwest is 21 inches, majority of which falls during the summer. The average for Louisiana is 60 inches, ranging from 4 to 6 inches for each month during the year.

From the foregoing official records it is plain that there is no section east of the Rocky Mountains that can compete with Louisiana in climate. If we have rivals, they alone exist in sections of Oregon and California.

The following are extracts of reports for those States:

The State of California has an average annual temperature ranging from 51° to 55° on the coast, to 62° in the interior, against a normal annual temperature for Louisiana of from 65° in the northern portion of the State to 68° in the southern portion. California has an average annual rainfall of from 11 inches at San Diego to 28 inches at Red Bluff. An average annual relative humidity of from 54 to 82 per cent.—San Francisco having an average of 75 per cent. and San Diego 73 per cent. against an average for Louisiana of 71 per cent.

The highest temperature at Los Angeles, Cal., is 108° ; at Red Bluff, 110° ; at Sacramento, 106° ; and coast maximums ranging from 90° to 101° . At Davisville and Dunnigan, Cal., maximum temperature of 118° was recorded.

The lowest temperatures for that State range from 16° to 33° , the highest minimums being reported from stations on the coast. The lowest temperature recorded on the Louisiana coast is 34° .

Westerly winds prevail in California, blowing from the ocean. In Louisiana southerly winds prevail, blowing from the Gulf.

In the matter of clear, fair and cloudy days, California has doubtless a greater amount of sunshine during the summer months, with almost a total lack of rainfall. During the winter months, fogs are very frequent in California. The rainfall in Louisiana is evenly distributed throughout the year with an absence of the foggy days.

Climatically speaking the therapeutic area of southern California is small. It is limited to those localities only which are directly influenced by the ocean breeze, and extends but a few miles inland. In the valleys back from the coast, the summer heat becomes unbearable, there is but slight vegetation, and good water is not easily procured. The winters are, however, mild and dry. Only a few inches of rain falls annually, and out-door life is practicable.

Oregon claims several distinct climates within its borders: on the coast the rainfall averages from 39 to 79 inches; in the Willamette valley from 41 to 67 inches; and in the remainder of the State from 9 to 35 inches annually. The rainy season begins

about October 15 and ends about May 1. Regarding the temperature it is sufficient to state that the range in the interior of Oregon is from 22° below zero to 106° above. Killing frosts occur on an average of 9 months during the year.

Louisiana has but one climate, and that well defined. We have hot weather, but we have also the cool Gulf breeze extending inland, reaching the extreme northern portion of the State, which has, however, a somewhat higher temperature than that recorded in the southern portion during the summer. The rainfall and moisture in the atmosphere are nearly the same, being slightly less north than south. The summers are long, but necessarily so for the crops that are grown.

Louisiana's comparative immunity from killing frosts is graphically portrayed on the small chart on the lower corner of the weather map. It will be seen that the extreme northern part of this State has the advantage of northern Florida in this particular, and that the southern part of Louisiana from Avoyelles Parish to the Gulf has no rival save the southern portion of Florida Peninsula. This is explainable by the fact that the majority of the cold waves that sweep southward over the country during the winter season are deflected east of Louisiana, and for the following reason: The atmosphere moves in huge waves similar to water. The cold wave is the base of the crest of this wave, and the hollow between the crests is the storm centre. A storm off the Texas coast and a cold wave forming in the Northwest are conditions suitable for a great fall in temperature between those regions, since the air resting on the surface of the earth moves out from under a high pressure, flowing in the direction of a lower pressure, which in this case would mean cold northerly winds flowing from the Northwest to Texas. But since all movements of the atmosphere have an eastward tendency, the storm that was in the Gulf yesterday will be found hundreds of miles to the eastward to-day, and the cold wave sweeping down from the Northwest has had its attraction removed and the cold surface winds are now from the Northwest. Another cause of the immunity we have from these cold waves is that there is a wall of warm moist air overhanging the Gulf, extending over the interior of the State, and the intermingling of the mass of cold air from the north with this warm air is seldom accomplished before both masses have passed eastward out of range of the State.

Another cause is that storms having their origin on the eastern Rocky Mountain slope have for an attraction the great lakes, since all storms will move toward a humid atmosphere and to where they have a clear sweep, thus accounting for the great number of our cyclones moving out the St. Lawrence valley.

It must not be understood from the foregoing that Louisiana has no cold waves, for during the past winter (my first in the South) the temperature in this city fell to 29° above zero; but while we escaped with that temperature, caused by a high pressure of air that swept down below a storm having its origin in Indiana, Florida on the same latitude had a temperature lower than that recorded here. [Great Applause:]

NOTE: The data from which the foregoing has been compiled are from Signal Service records covering the period from November 1, 1870 to January 1, 1885, and do not include the cold wave of January, 1886, when minimum temperatures of from 5 to 10 degrees below any previous record were reported from the majority of Southern and Eastern States.

LOUISIANA WEATHER SERVICE.

SOUTH LOUISIANA.

Spring has a normal mean temperature ranging between 66° in west and north portions, to nearly 70° in southeast portion; the highest temperature ranges between 93° in southeast portion to 98° in west-central portion; the lowest on record ranges between 20° in west-central portion to 30° in southeast portion, and 35° along the east Gulf coast. The sunshine averages 54 per cent. The rainfall averages between 9 and 14 inches; the former in southwest portion, and latter in the extreme north portion, with the east portion having a uniform fall of 12 inches.

Summer has a normal mean temperature of 80° , being 79° in west portion, and 81° in extreme east portion. The highest temperatures on record range between 97° in southeast portion and 101° in west portion; the lowest ranges between 50° in west portion to 58° in southeast portion. The sunshine averages 53 per cent. in east portion and 47 to 50 per cent. in west portion. The rainfall varies between 16 inches in eastern half to less than 19 inches in western half.

Autumn has a normal mean temperature between 65° and 70° , the former in west portion, and latter in southeast portion. The highest temperatures on record range between 94° and 98° ; the lowest between 22° and 25° . The sunshine averages 55 per cent.

and is greatest in southeast portion. The rainfall averages from 10 to 13 inches.

Winter has an average temperature of 55° , being 54° in west and north portions and 56° in southeast portion. The highest temperature on record ranges between 82° and 88° , the latter in west portion; the lowest, between 10° and 15° ; the former in west and north portions. The sunshine gives a general average of 47 per cent. The rainfall ranges from 12 to less than 16 inches; the latter in northeast portion, and former in southwest.

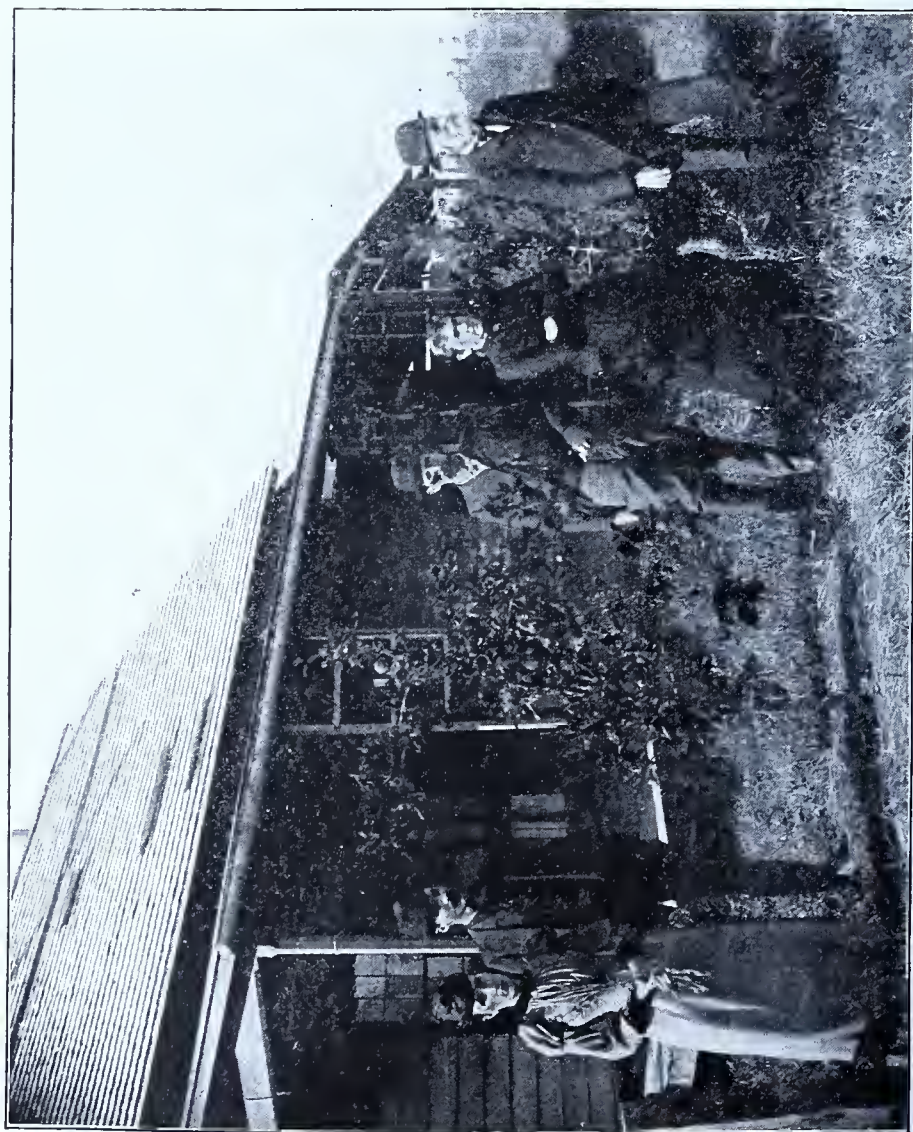
ADVANTAGES OF CLIMATE.

In order to provoke discussion and diffuse knowledge of the utmost importance to man, I give a few suggestions derived mainly from experience. My first suggestion is that extremes are injurious to the best interests of man. The life of man, beast or vegetable is dwarfed, shattered or killed outright by our cold climate, and is injured to some extent by torrid heat, the exceptions being the superior development of vegetable and animal life in the tropics. In the struggle for life nature's greatest effort, her largest expenditure of force, is to counteract the vicissitudes of climate. Then it follows, the polar region is most unfitted for the abode of man and the temperate zones most favorable to life and its proper development.

Now, man having power of choice and means of transportation should fairly consider these conditions and place himself where he will receive most benefit from climate, seeing that the climatic condition cannot be changed, but man's condition may be. Then comes the question what part of the temperate zone is the most favorable; and for present purposes let us say of the United States?

Then I say, (other things being equal), where you can have most of life's blessings, with the least expenditure of labor; also where we require least protection from extremes, and where most of the necessities and comforts of life can be produced on the spot; where we can raise the greatest variety and where we have best markets and means of exchange.

Where have we the most even climate and the cheapest protection against extremes? I answer, confidently, the coast line of the Gulf of Mexico. One season merges almost imperceptibly into another; extreme heat and cold, about 70° , and climatic changes very gradual, about 20° , covers the changes of the twenty-



Satsuma Orange only Two Years From Budding, at Home of S. L. Cary, Jennings, La.

four hours, and 5° to 10° from month to month. Corn can be planted from February to July, and gardens made from January to November, and fuel and lumber had at nominal prices; wool and cotton at lowest price; stock of all kinds roam over the prairies at will and are never fed by the hand of man.

The cereals here require same labor as further north, but at a more seasonable time. Fall-sown crops mature and are harvested in May, while sugar, cotton, hay and rice are harvested from August to January. There is little to do during the heated term; and fruits, delicious fruits, luxuries of life, necessities of health, solace our leisure hours. Where are our orchards to-day? Follow the coast line, and you will see nearly all. The peach king of the world, Parnell, of Georgia; and for pears, Thomasville, of same State; for tropical and semi-tropical fruits the coast line alone, while figs, apricots, prunes, olives, grapes, pomegranates and berries are in abundance. Go to the coast for fish, oysters, game, sugar, rice, cotton, tobacco, corn and textile fabrics.

Here flourish walnuts, pecans, almonds and most nut-bearing trees. It's eminently a tree bearing country—a prairie only by accident.

But, says the Northern man, living comes too easy; you will lose energy, your vigor will abate, and ignorance and indolence will be your inheritance. Does it follow, or is it not a fact that success induces energy, and failure brings despondency and sloth? When my efforts are successful, will I not renew them? When I plant a successful orchard, will I not enlarge it?

The results of unfavorable conditions are often mistaken for results of climate (slavery for instance). That the very highest degree of success has been attained in a similar climate, all will admit. (I refer to Greece and Rome.) The successful raising of fruits is one of the fine arts; a good orchard is the work of an able man. Does chilling the body improve the mind? Does freezing improve the quality of man, beast or vegetable? Does the heat of a tropical sun give energy or ambition? Neither extreme is favorable. But give me a genial clime, a generous soil, clouds laden with moisture and skies sparkling with dew—a land where human effort meets a kind return; where fruit trees grow to maturity in shortest time and where returns are made with largest liberality.

Men are only thankful for favors received and always respond

promptly to the touch of plenty. Pinching cold, chattering teeth, frost-bitten limbs awake neither intelligence, enterprise, thankfulness or genius in man. We love to work in comfort—neither hot nor cold, but on the middle plane; no cold to freeze or heat to burn. And this most favorable place and these most favorable conditions we find in Southwest Louisiana, the future home of the orchards of America, where the finest quality of fruits are raised without irrigation, with little care, on a clay soil, which gives highest flavor and best success in raising trees from cuttings, thereby avoiding the expense of budding and grafting, insuring more abundant crops of the finest varieties, and so situated that fruit picked by day can reach a seaboard market by the next morning, and the home of its most enterprising and prosperous people. A land of grass, a land of fruit, a land of easy conditions and great natural advantages?

WHY THEY NEVER FEEL THE COLD.

"Yes," remarked the St. Paul man to a friend from Chicago, as he stood arrayed in his blanket suit and adjusted a couple of buckskin chest protectors: "Yes, there is something about the air in this Northwestern climate which causes a person not to notice the cold. Its extreme dryness," he continued, as he drew on a pair of extra woolen socks, a pair of Scandinavian sheep-skin boots, and some Alaska overshoes—"its extreme dryness makes a degree of cold, reckoned by the mercury, which would be unbearable in other latitudes, simply exhilarating here. I have suffered more with the cold in Michigan, for instance," he added, as he drew on a pair of goat-skin leggings, adjusted a double fur cap, and tied on some Esquimax ear muffs—"in Michigan or Illinois, we will say, with the thermometer at zero or above, than I have here with it at 45 to 50 below. The dryness of our winter air is certainly remarkable," he went on, as he wound a couple rods of red woolen scarf about his neck, wrapped a dozen newspapers around his body, drew on a fall cloth overcoat, a winter cloth overcoat, a light buffalo skin overcoat, and a heavy polar bear skin overcoat; "no, if you have never enjoyed our glorious Minnesota winter climate with its dry atmosphere, its bright sunshine, and invigorating ozone, you would scarcely believe some things I could tell you about it. The air is so dry," he continued, as he adjusted his leather nose protector, drew on his reindeer skin mittens, and carefully closed one eye hole in the sealskin

mask he drew down from his cap—"its so dry that actually it seems next to impossible to feel the cold at all. We can scarcely realize in the spring that we have had winter, owing to the extreme dryness of the atmosphere. By the way," he went on, turning to his wife, "just bring me a couple of blankets and those bed quilts and throw over my shoulders, and hand me that muff with the hot soapstone in it, and now I'll take a pull at this jug of brandy and whale oil, and then if you'll have the girl bring me my snow shoes and iceberg scaling stick, I'll step over and see them pry the workmen off the top of the ice palace who were frozen on yesterday. I tell you we would'nt be going out this way, 500 miles further south, where the air is damp and chilly. Nothing but our dry air makes it possible."—*Chicago Tribune*.

RICE.

ITS CULTIVATION ON THE PRAIRIES OF SOUTHWESTERN LOUISIANA.—DOES IT PAY?

Rice is a cereal plant of the genus *oryza*. It is cultivated in all warm climates and forms a large part of the food of those countries. It is light and nutritious and very easy of digestion. It is a staple of commerce all over the world and is largely used in the United States.

Heretofore our supplies were mainly from Japan, China and the Carolinas. Laterly Louisiana has come into the market as a rice-producing country, and by the use of improved machinery in cultivating and harvesting has stepped to the front rank as a rice-producing State.

The rough rice is sown on new or old land prepared as for other grain. One bushel (44 pounds) per acre is sufficient.

Level land capable of flooding is best. Soil, clay loam with clay sub-soil. Levees should be prepared as long as possible before seeding, and field should be flooded when rice is 6 to 12 inches high, with 4 to 12 inches of water. Sow from March 10 to June 20, and harvest in August, September and October.

In appearance rice much resembles wheat in its early growth. The head more nearly resembles oats, but the kernels resemble barley and are more closely packed in the head than oats. It stools thickly, having thirty to one hundred straws from one seed and one hundred to four hundred seeds in a head. It is the only small cereal plant that yields the hundredfold of Scripture.

Rice raising for commerce began in Southwestern Louisiana



HARVESTING RICE, CALCASIEU PARISH, LA.

with the advent of the Iowa Colony and twine-binding harvesters, in 1884, when Maurice Brien, of Jennings, La., put a twine-binder in the field.

In 1883 five acres was about the largest field; since then the growth has been rapid, as figures show.

The Southern Pacific Railroad shipped in 1886, 2,000,000 pounds; 1887, 4,000,000 pounds; 1888, 8,000,000 pounds; 1889, 16,000,000 pounds; 1890, 60,000,000 pounds; 1891, 180,000,000 pounds; 1892 and 1893, 300,000,000 pounds.

In 1884 there was used.....	1 twine-binder.
In 1885 there were used.....	5 twine-binders.
In 1886 there were used.....	50 twine-binders.
In 1887 there were used.....	200 twine-binders.
In 1888 there were used.....	400 twine-binders.
In 1890 there were used.....	1,000 twine-binders.
In 1891 there were used.....	2,000 twine-binders.
In 1892 there were used.....	3,000 twine-binders.

The Southern Pacific Railroad shipped in 1884, about 250 cars of rice between Lake Charles and La Fayette; in 1889, over 1,000 cars; in 1890, 2,000 cars; 1891, 5,000 cars; and for 1892 and 1893, 10,000 cars.

With good cultivation and care rice yields fifteen barrels (60 bushels) per acre. This has brought an average of \$3 per barrel —\$45 per acre.

The cost of growing, harvesting and marketing will generally reach \$1 per barrel, say \$15 per acre, unless you have to pump water by steam. Most of the rice is raised by natural irrigation, rain, water flowing from higher lands and held by levees.

Cost of growing an acre of rice, say fifteen barrels, is \$15 and fifteen barrels of rice at the average, \$3, is \$45, leaving \$30 net.

Cost of raising ten barrels, about \$10; value of ten barrels is \$30, leaving \$20 net.

W. W. Duson, at Crowley, has 2,000 acres of good rice; John Watt, of Jennings, 200 acres; F. B. Cutting, 300; L. W. Sockriden, 75; G. Brown, 75; L. L. Morse, 250; Q. W. Simmons, 40; G. H. Morse, 200; Wm. H. Harris, 150; Maurice Brien, 100; Cary & Bibbins, 350, and A. D. McFarlain, of Jennings, 1,025. A much larger area will be planted next year. The total rice crop along the Atlantic Coast, 1889, was 190,000 sacks. Louisiana raised 642,053 sacks.

Our imports were about 500,000 sacks, 225 pounds of clean rice each. The total consumption of domestic and foreign rice (*Times-Democrat*, September 1,) is as follows:

	Domestic Sacks.	Foreign Sacks.
1884.....	490,000	333,000
1885.....	600,000	246,000
1886.....	615,000	208,000
1887.....	448,000	410,000
1888.....	465,000	491,000
1890.....	500,000	450,000
1891.....	600,000	500,000
1892—estimated	600,000	620,000

Since writing the first part of this article, the increase of production in Southwestern Louisiana has been so great that it has been impossible to handle the crop, economically, and the immediate result has been low prices, not so much for the clean product but mainly on the rough rice in farmer's hands, for which the average price in first hands has been \$2 per barrel of 162 pounds of rough. This is equivalent to a price of three cents a pound for the clean rice, and it becomes a serious problem to the planter (the future price). "The present price is usually the best opinion of the best men in the market." If so, then can the Louisiana planter compete with the old established planters in Carolina and on the Mississippi? I believe that Louisiana has the field, for many reasons: peculiarity of soil, heavy clay, supporting with ease the best agricultural machinery. One man with a machine and four mules has the working power of forty with a sickle. We have an abundant rainfall, supplemented by steam pumps and engines on hand, and numerous rivers and lakes to draw from, also a very long season in which to operate—from November to July for plowing and preparing ground and levees; March, April, May and June for seeding; August, September, October and November for threshing and marketing. Rice can be grown and marketed at a cost of \$1.50 per barrel of 162 pounds of rough. All above is a clear profit. Wheat, oats and corn are grown North and sold at actual cost of growing, and lands are sold at \$30 to \$100 per acre where those conditions exist. I hear it rumored that our competitors are out of the race at \$2 a barrel. I do not hesitate to say that Southwestern Louisiana, with her improved machinery, her generous soil, wonderful climate and easy conditions, her splendid people, will be able still to let out a link or two and grow rice at a good round profit for \$1 a sack.

I do not expect to see prices that low; at the same time I believe the day of high prices for all manufactured products is past and I am glad of it. The day is near when eight hours' work will give each one a full day's rations. A large part of the rice grown should be consumed on our farms. There is no better feed for stock, and none cheaper at present prices. Its uses will broaden with present low prices. The good rice land is limited in quantity, and as population increases and its value as a food plant is made known, the tendency will be to stimulate prices and production.

Egyptian or soft rice is best feed for stock, and some claim better yields and with less water. The country has been flooded not only with water but with machinery, yet notwithstanding the low prices collections are much better than elsewhere. The first receipt of new rice in 1891 was August 31; 1890, July 31; 1889, August 1; 1888, July 29. Canals, artesian wells, pumps, engines, windmills and improved machinery are wanted, and fortunes await the industrious men of genius and enterprise. Labor and intelligence are at a higher premium here than elsewhere. The crop of Louisiana for 1892 will reach 2,000,000 of sacks=200,000,000 pounds of rough rice=112,000,000 pounds of clean rice, at four cents a pound=\$4,448,000. If Louisiana grows 112,000,000 pounds of clean rice, then the balance of the Gulf States will grow about one-third as much, giving for the domestic product 150,000,000 pounds of clean, so we will have to import as much to equal consumption.

Better and cheaper methods of production are being adopted each year. But the broadening uses and increasing population will doubtless keep pace with production. Rice, sugar and cotton are the three mystic links that bind Louisiana to the greatest prosperity.



THRESHING RICE, ACADIA PARISH, LA.

STATEMENT OF RICE SHIPMENTS FROM LOUISIANA WESTERN RAILROAD FOR
OCTOBER, NOVEMBER AND DECEMBER, 1892 AND 1891.

	OCTOBER.		Increase in Pounds.	NOVEMBER.		Increase in Pounds.	DECEMBER.		Increase in Pounds.
	1892.	1891.		1892.	1891.		1892.	1891.	
Vinton.....	22,500	.....	22,500	246,256	.....	246,256	326,612	.....	326,612
Edgerly.....	489,807	187,820	301,987	598,418	235,130	363,288	228,517	157,783	70,734
Westlake.....	.....	.....	.....	69,475	.....	69,475	114,129	.....	114,129
*Lake Charles.....	.....	134,780	*	127,820	994,850	*	372,740	718,420	345,680
Welsh.....	759,554	680,785	78,769	2,154,103	1,499,070	655,033	2,449,071	1,424,605	1,024,376
Jennings.....	1,576,325	388,323	1,188,002	5,077,290	1,952,634	3,124,656	5,214,270	1,331,180	3,883,090
Mermonteau.....	1,904,939	1,091,320	873,619	4,435,400	1,560,963	2,874,437	6,411,510	1,083,360	5,328,150
Crowley.....	6,866,820	6,382,010	484,810	9,837,830	6,311,612	3,526,218	9,868,649	3,985,598	5,883,051
Rayne.....	4,453,259	2,176,781	2,276,478	5,623,857	1,712,074	3,911,783	5,820,188	1,470,867	4,349,321
Scott.....	932,858	3,110	929,748	764,810	278,960	485,850	1,450,820	75,006	1,375,814
La. West. R. R..	1,440,844	281,740	1,159,104	3,520,189	1,650,957	1,869,232	6,420,418	1,055,002	5,365,416
Totals, -	18,506,906	11,326,669	7,180,237	32,455,448	16,196,250	16,259,198	38,676,924	11,301,911	27,375,013
TOTAL INCREASE, 50,814,448 pounds.				*No comparison taken.					
*Lake Charles is a large Rice Milling point; shipments in, not out.									

OPELOUSAS.

No. Pounds.

Increase of January, 1893, over January, 1892.....2,537,620
 Increase of February, 1893, over February, 1892.....1,558,770

SUNSET.

Increase of January, 1893, over January, 1892.....779,451
 Increase of February, 1893, over February, 1892.....333,286

BROUSSARD.

Increase of January, 1893, over January, 1892.....103,150
 Total shipment.....108,000

ABBEVILLE.

Increase of January, 1893, over January, 1892.....1,926,930
 Increase of February, 1893, over February, 1892.....271,458

MORGAN CITY.

Increase of January, 1893, over January, 1892.....129,685
 Increase of February, 1893, over February, 1892.....17,205

HOUMA.

Increase of January, 1893, over January, 1892.....155,079
 Increase of February, 1893, over February, 1892.....8,557

OPELOUSAS.

Increase of December, 1892, over December, 1891.....6,158,262

SUNSET.

Increase of December, 1892, over December, 1891.....875,190

WASHINGTON.

Increase of December, 1892, over December, 1891.....887,281
 Total shipment.....891,461

MORGAN CITY.

Increase of December, 1892, over December, 1891.....2,164,575

Louisiana Western Railroad stations having no agents show an increase in
 December, 1892, of 5,365,416 pounds, on total shipment of 6,420,418 pounds.

NAMES OF RICE PLANTERS.

	Post Office.	No. Acres.
— Richards.....	Mermonteau	150
V. A. Mignaud	"	300
S. L. Peck	"	200
Cary & Bibbins.....	"	350
Leon Viterbo & Bro	Jennings.....	750
A. D. McFarlain	"	1,080
H. Gillert.....	"	1,500
L. L. Morse.....	"	200
G. H. Morse	"	350
H. Kistner.....	"	400
M. T. Smedly.....	"	70
James Maund.....	"	50
F. B. Cutting.....	"	400
S. P. More	"	400
I. W. Sockrider.....	"	75
H. L. and C. C. Cary	"	150
John Watt	"	300
Wm. H. Harris.....	"	200
H. T. Miller	"	50
W. H. Simmons.....	"	75
Maurice Brien	"	100
C. L. Shaw.....	"	100
L. R. Hunter	Welsh.....	100
A. P. Hewett.....	"	105
F. M. Sherfy.....	"	—
— Verritt.....	"	300
C. M. Field.....	"	100
James Hewitt.....	Esterly	100
S. A. Hombergen.....	"	50
Wm. Funk.....	"	100
I. E. Hall.....	Lake Arthur.....	520
J. B. Sharpe	"	160
A. M. Arthur.....	"	500
C. A. Lowry	"	350
Willins & Pinney	"	750
John Bradbury.....	"	160
Geo. M. Funk.....	Jennings.....	50
Willis A. Wood.....	"	200

MINERALS.

Southwestern Louisiana has not been favored with a geological survey; surface indications are rich. Salt crops out at Petit Anse; rock salt, the purest in the world, has been found. The island is one immense block of crystalized chloride of sodium. A mine has been worked for many years, a train load a day leaves the rich mine (for the Southern Pacific is there) and it has made its owner, Mr. Avery, a millionaire. The mine is being worked on the second level, 180 feet below the surface, and borings have been made to the depth of 800 feet through pure rock salt, revealing at least twenty millions of tons. Sulphur has been found near Lake Charles in large quantities. At Sulphur Mine Station on the Southern Pacific Railroad millions of dollars have been

expended in sinking shafts and borings that have resulted in finding immense beds of pure sulphur, petroleum and other oils. There are grave difficulties yet to overcome to make this mine available, but as the Standard Oil Co. and others are on the ground, sooner or later they will succeed.

The salt mine is beautifully located on an island in an open prairie country with considerable timber, only 10 miles from New Iberia with which it is connected by rail; only a few miles from Orange Island, the home of the famous comedian, Joseph Jefferson.

HEALTHFULNESS.—If the same care was exercised in Louisiana to keep the system in order as in the Northern States, the average health of the family would be much better here than there. There is very little malaria in the prairie region of Southwestern Louisiana, and that is easily managed by ordinary care.

TOPOGRAPHY, ETC.—Along the entire Gulf coast, and from thirty to seventy miles northward, it is prairie, intersected by rivers and interspersed with picturesque lakes and woodland. North of the prairie is a vast forest of yellow pine, oak, hickory, beech, gum, magnolia, etc., of great value for lumber. The surface is quite rolling near the streams, but more remote rises into slightly undulating table lands.

ROADS.—These are easily and quickly made with clay that packs well and is easily handled, fall, winter or spring; can be made first class for fifty to seventy-five dollars a mile. Calcasieu Parish has a large fund for road purposes and is letting contracts for grading and bridging wherever right of way has been obtained. The old custom of forty feet wide is passing away with long-horned stock and sixty feet is the coming fashion.

Other parishes are adopting modern methods of road work, one man to oversee and graders and teams to be kept at it all the season.

WATER.—We have an abundant supply, fifty-five inches annual rainfall, divided quite evenly among the months of the year as follows:

Average for seventeen years.—January, four and nine-tenths; February, four and seven-eighths; March, four and six-tenths; April, five and sixth-tenths; May, four and eight-tenths; June, three and five-tenths; July, three and nine-tenths; August, two

and one-tenth; September, four and four-tenths; October, four and four-tenths; November, four and eight-tenths; December, five and two-tenths; average yearly fifty-two and four-tenths inches.

A small cistern costing twenty to twenty-five dollars will keep a good family supply of the sweetest, purest water always cool enough and always handy. Well water in abundance at fifteen to twenty-five feet, through a clay soil, generally soft, and about at the best temperature for drinking safely summer or winter, 60° to 65° Fahrenheit.

For people living near rice fields the cistern is perfectly safe and to be recommended. We have rivers and lakes with an unlimited supply of good water so much needed for all growing crops. Hundreds of engines and pumps are lifting the water twenty to thirty feet high into flumes which carry it for miles to be used over thousands of acres of growing rice and by and by over our fields of sugar cane; fifteen to twenty-five tons per acre without irrigation. What yields will be made when an abundant supply of water is given during the dryest time—no more short joints in our canes. There are times in every season when irrigation would pay. Who will put in a system of water works first, bringing water not from rocks—there is not a rock or stone in the country—but from springs, lakes and rivers of water? This is a good opportunity for a paying investment.

For house use, rain water is the best, but most of the farmers use well water, which is abundant and of good quality generally. The springs, creeks and rivers afford abundant stock water.

SPANISH MOSS.—Grows along all the rivers and bayous of Southwestern Louisiana. In its green state its color is grey (not as bad as a green blackberry, which is red.) It is an aereophyte attached to trees, feeds upon air. It grows in great abundance, is easily gathered and cured. It blooms annually and reproduces itself when gathered from the trees. Can be gathered for thirty cents per hundred pounds. Cured and cleaned for one cent a pound and sells at three to four cents per pound in market. Is used like hair in upholstering and saddlery. No one need to starve near a moss field. It reproduces in six months; is said by some to be more profitable than a cotton field ready grown.

INSECTS.—There are fewer flies than upon the Northern prairies, and about the same number of mosquitoes and harmful snakes.

SCHOOLS, SOCIETY AND POLITICS.—Schools are not as numerous in the country as in the North, but there are good school laws, and as fast as the country settles schools can be secured. There are many Northern people in Southwestern Louisiana, and more are coming every day. The native population are kind and friendly.

Property is safe. There are fewer locks and keys in the rural districts than in any country of equal extent in America. You can vote as you please and every vote will be fairly counted.

THE GRASSES OF SOUTHWESTERN LOUISIANA.

S. L. CARY, Esq.

Dear Sir:—Of all the kings of the earth, there is no doubt but King Grass leads them all, grass being the foundation of all agricultural prosperity. Acknowledging this to be a fact, let us see how this will apply to Southwestern Louisiana. Grass appears to be indigenous to this section, for upwards of thirty different varieties grow spontaneously, without planting or cultivating, including Bermuda, Japan, White and Burr Clovers, Gazon or Carpet Grass, Blue Joint, Wild Oat Grass, Wild Alfalfa and shade grass. Some of these grasses remain green all the year 'round. These grasses if cut in the proper season, during the months of July and August, make a superior hay, which sells readily at prices varying from \$5 to \$8 per ton, free on board cars, there being a large demand for it in Western Texas and other points. Another source of profit, is to feed these grasses to cattle, sheep and other live stock. At the present time there are thousands of acres of this grass allowed to go to waste, growing from one to two tons per acre, simply for the want of more hands to make it into hay; or for the want of more improved stock to graze the same. The former must be left to those who want to find a home in a mild, healthy climate, where blizzards are unknown; the latter by importing young improved stock, either of cattle or sheep, as both will do equally as well. Cattle must be under one year old when brought here. Such cattle will not take the Southern fever. Tame grasses have not been grown much yet, but there is not any doubt, if planted in the proper season, such grasses can be grown successfully. The often abused Johnson grass, with proper cultivation and care, may be made one of the most profitable grasses grown, it being natural to a warm climate, and may be made to yield from four to six tons per acre annually. There is a great demand for this hay in the mining sections of Mexico, at a good price.

Yours truly, JAMES MAUND.



SHIPPING RICE AT CROWLEY, LA.

MACHINERY.

WHAT MACHINERY HAS DONE FOR SOUTHWESTERN LOUISIANA.

It has made it possible for a few men from the Northwest to capture the rice industry. It has enabled one man with a machine and four mules to do the work of thirty to forty men in harvest which lasts three months of the year. The 3,000 twine binding harvesters in use, represent for three months an unseen population of 100,000 men, who never strike, ask for no holidays, never hunger, thirst, or get tired. It gives to one man the productive capacity of thirty. A good machine is the laboring man's best friend. It at first displaces labor, educates, and gives the power to earn better wages. There is very little or no prejudice against machinery in Southwestern Louisiana. Threshing is done by the same machine (slightly modified) that is used for wheat North, using a traction engine of ten to twelve horse power, about 150 in use. The large rice fields are supplied with pumps and engines. A pump of large capacity, driven by a fifty horse power engine, will flood successfully 300 to 500 acres, depending upon the season (wet or dry). The same engines for running threshing machines are largely used for pumping on smaller fields. Plows, harrows, cutaways, rollers and pulverizers of most improved pattern are used. Plowing by steam is being done experimentally, it's true; but the nature of the soil, the lay of the land, and the enterprise of the people warrant success.

A very large amount of machinery has been sold, and yet the agents said collections are much better here than elsewhere.

SAFE AND PROFITABLE INVESTMENTS.

Southwest Louisiana offers a clear field. Few mortgages, and land titles very short direct from the Government. Besides, these lands are capable of earning more than ordinary lands, as they grow the most valuable crops—sugar and rice. All northern products are grown and mature earlier and later than the usual season, making them particularly valuable. For instance, Irish potatoes ripen in May, strawberries in February, grapes in July, dewberries in April, peaches in May, pears in July, oats in June, corn in July. The first thirty days of the market is worth more than all the rest of the year. We have the benefit of climate which costs nothing and adds ninety per cent. to values. At this time, March 1, fruit trees are in full bloom, vegetables of most kinds at and near maturity; those things saved, are of immense

value. The average date of last killing frosts for the past thirty years, for Louisiana, is March 5, and the nearer the coast the less the danger. Now, along the line of the Southern Pacific Railroad, we have passed the great danger line, while fifty to one hundred miles north, both fruit and vegetables have been killed. If our products are killed sometimes by late frosts, still we have earlier seeding than anywhere north of us, as we are only liable to same freezes in March that Iowa and Illinois have in May, so that in every way Southwestern Louisiana is a safer place for investment than elsewhere.

WHAT WE WERE TOLD BY "WE TOLD YOU SO," AND HOW IT CAME OUT.

We were told that Southern people had no enterprise, lacked vigor, were indolent, and that we would become lazy and lose all our energy within two years. Our sufficient answer is to point to what we have done in the rice crop. We have outgrown the capacity of the rice mills and commission men of New Orleans, have raised to the full extent of the ability of the great Southern Pacific Railroad to handle. Commencing a few years ago with a shipment of 2,000,000 pounds, next season 4,000,000, then 8,000,000, then 16,000,000, then 63,000,000, then 180,000,000 1891 and 1892, and now 1892 and 1893 over 300,000,000 pounds, show that our Southern brethren have not been behind us in the race. We were told that we would be ostracised for opinion's sake. Answer, not so. We were told that we would be more subject to epidemics. Answer, not so. We were told that the climate was enervating. Answer, if so, how is it that all civilizations have sprung from warm countries. "Climates that grow oranges have grown all civilizations." Yellow fever was the great "scare crow." Answer, yellow fever does not originate in the Southern States, is controlled by quarantine, and is more easily cured than many Northern diseases that cannot be quarantined. Even the gentle grippe has more victims North than yellow fever in same length of time South. Diphtheria is more fatal, and does nearly all his deadly work north of the Ohio River. Diphtheria, a Northern disease, is more fatal than any Southern disease. Small-pox is mainly a Northern disease. We were told that roses had no fragrance, fruits no flavor. Both are untrue. We were told that the country was a marsh. Our prairies are not boggy. Our lands, some are low, and some are high and rolling, wet and dry

on nearly every quarter section, making each farm the more valuable on account of this variety. The value of lands is enhanced by its varieties, its peculiarities. If I had the only farm that could grow any particular crop of general use, its value would be immense.

LAKE CHARLES COLLEGE.

Two years ago last October (1890) Lake Charles College opened its doors to furnish first-class training in high school studies and college courses, determined also to receive any who might come to it for a good common English education.

It is not a sectarian or denominational institution, but one administered by a board of trustees seeking to make it Christian in practice.

It has three departments, College, Preparatory and Academic, or English. This last department has three courses, English, Normal and Business, and is designed for those not intending to enter the college proper. These courses can be taken up at any point when the student is prepared. Taken from the beginning the business course lasts two years and is intended to prepare for business. The normal course, extending over three years, provides for a thorough study of the fundamental English branches with a view to teaching. The English, or academic course embraces some of the English studies of the college, with French, German and the sciences. The preparatory courses (classical and scientific) occupy three years and are followed by the classical and scientific courses in the college, covering four years.

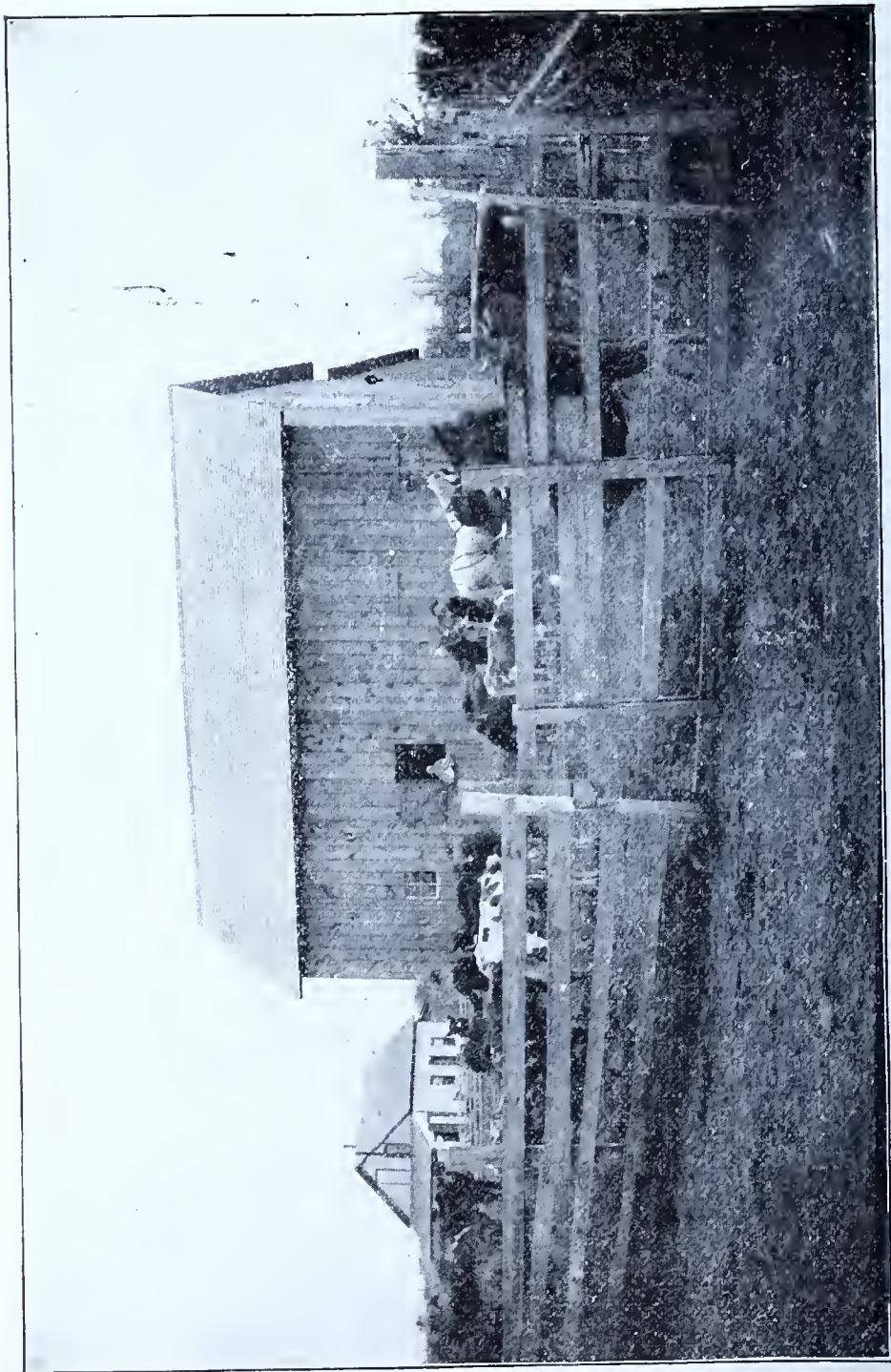
Free instruction is given two or three times a week in vocal music and free-hand drawing.

To all studying for the Christian ministry, and to the children of all pastors of churches exclusively engaged in the work of the ministry, *tuition is free*.

The endeavor of the college is by means of thoroughly trained teachers to give the best training according to the best methods, at the same time making character and conduct of the first importance.

Such an institution is of priceless value to any community, and is always worth more than it costs.

The college is located at Lake Charles, La., on the main line of the Southern Pacific Railroad, 217 miles west of New Orleans



STOCK FARM OF S. L. CARY, JENNINGS, LA.

and 140 east of Houston, and at the southern terminus of the Kansas City, Watkins & Gulf Railway, and is thus easily accessible from all parts of the State and Texas.

It has spacious grounds of sixteen acres enclosed, and two college buildings, with the promise of a third.

College Hall has sixteen rooms for recitations. The beginning of a library occupies one. The young ladies' cottage has sixteen large rooms and two smaller ones. These rooms are furnished all ready for use, excepting a few things brought by each student.

Till the cottage for young gentlemen is erected, out of town students will be quartered in selected families, who have care for the students and report to the president.

For catalogues or any information address

REV. HENRY L. HUBBELL, D. D.,
President of the College.

FEED FOR STOCK.

THE PROBLEM OF CHEAP FEED FOR STOCK IN SOUTHWESTERN LOUISIANA.

To this date feed for stock has been brought in from abroad, prices have been high and the drain very heavy. Rice is proving to be good and cheap feed for all kinds of stock. Rice can be grown here as cheaply, pound for pound, as any other grain, and for less money than it costs to import other feed stuffs from north of us. And now we are growing a soft rice, Egyptian, or "bull" rice, yielding well with less water and much better to feed in its whole state. Corn is a paying crop—twenty to forty bushels per acre, according to cultivation and season. Sweet potatoes are well adapted to soil and climate here, yield well with little cultivation, and grow equally well from vines planted as from slips. Everything, even to the dog and cat, eats sweet potatoes, but for the Northern market we must grow the Jersey potato, which seems to grow equally as well and is of as good quality or better, than that raised North. These can be laid down in Northern markets at a cost of three dollars or less per barrel, selling now at four to five dollars. Rice straw is as good as other straw, or as common prairie hay. Prairie hay is now selling at from six to seven dollars a ton on track ready for shipment. We have a very large surplus of either straw or grass that is burned annually. It has a good feeding value, and this is the best place to feed it. It

takes less feed to make pork or beef in a warm climate, and prices are generally better. The proper feeding of stock is essential to our greatest prosperity. The hulling or grinding of rice would add largely to its feeding value. There is a great variety of feed stuffs that can be grown here, and with good conveniences and care in feeding we can be entirely independent of the feed store, and can not only supply the home, but can have meats for the market. I am feeding rice and rice straw very satisfactorily. H. C. Drew and Pagent, of Lake Charles, will feed 400 tons of rice straw this season to 300 head of stock. They expect to grow 1,200 acres of rice, partly to feed 600 to 900 head of stock. Prof. S. A. Knapp fed, this year, forty acres of rice in the bundle to horses and mules while working, and satisfactorily, and expects to enlarge rice field and feeding next season.

Successful farming is reduced to stock raising, even in the Northwest. There is no good reason why the South should not supply its own markets with all kinds of stock and all kinds of meats. Even cotton seed hulls are better meat-producing feed than corn fodder, timothy, red clover or potatoes. Cotton seed hulls cost at the mills two dollars per ton. Timothy and clover hay cost eighteen to twenty dollars per ton; rice bran, much better feed, as seen by the table, eight to ten dollars per ton. Cotton seed meal, with ten times the meat-producing power of timothy hay, can be bought at the same price in our markets, and warm weather is the best time to feed stock. The Southern winter along the Gulf coast is perfection for fattening stock. With shade, grass and good water in summer, and shelter from rains and Southern feed stuffs for winter, stock can be kept ready for the highest and best market with less expense, and, therefore, at better profit than at any place elsewhere that I know of. I append a table from the *Times-Democrat*, giving comparative feeding values:

“The United States Department of Agriculture publishes the results of the very interesting experiments recently made by Professors E. H. Jenks and A. L. Winton, at New Haven, Conn., of the American feeding stuffs. No less than 3,267 feeding stuffs were carefully analyzed to see their food and fat-making value. Among the stuffs analyzed were of green fodder-cereals, grasses and legumes, silage, hay and dry coarse fodder, roots, bulbs, winter and other vegetables, grains and other seeds, mill products and waste material.

"The following table giving the protein (or meat-making) and fat value of some of the leading cattle foods analyzed, will be interesting to farmers:

	Protein. Per cent.	Fat. Per cent.
Corn fodder	2.0	0.7
Timothy	3.1	1.3
Red clover	4.4	1.1
Alfalfa	4.8	0.4
Hay, red clover.....	12.3	3.3
Potatoes.....	2.1	0.1
Corn	10.1	4.4
Oats	11.8	5.0
Cowpeas	20.8	1.4
Linseed	21.6	30.4
Corn, cob	2.4	0.5
Rye, bran	14.7	2.8
Rice, bran.....	12.1	8.8
Rice, hulls.....	3.6	0.7
Cottonseed meal.....	42.3	13.1
Cottonseed hulls.....	4.0	2.0
Linseed meal.....	33.2	3.0

SOUTHERN HOMES.

The following letter from Mr. W. J. Randolph, of Millersville, Louisiana, to a friend in Dakota, is quite interesting, and especially so to hundreds of families in the Northwest now looking southward for Southern homes. Millersville is only 8 miles north of Jennings, on the celebrated Calcasieu prairie, that is being settled almost exclusively by Northern people:

MILLERSVILLE, LA., Dec. 15, 1887.

Dear Brother Fassett.—The *News* still comes to me, forwarded from Spottswood. Now facts are, I am not able to take all the news—I am abundantly able to take, but am not able to pay for them. If you are so interested in my knowing the capacity of the average Dakota newspaper man for expanding the naked truth, you better send the paper here, but for your own safety, and financial success, you better "stopper." I stayed in the banana belt too long to have dollars around loose. When I read of 30° below zero and no coal, I shudder and wonder if I really was ever there. We have had a few frosts, the grass is green and cattle and horses on the range are fat and sleek. I am writing in a room without fire and doors open. We don't fear a coal famine; we can go and get enough fuel to last a week in an hour's time, and it won't cost a cent. We live on as beautiful prairie as ever lay out of doors. Magnificent timber of all kinds on either side within a mile and a half. Good fence lumber costs \$7 per thousand feet, and health is as good or better than in Dakota. Abundance of wild fruit from March to August. Peaches, nec-



LIVE OAK, LAKESIDE, LA.

tarines, apricots, figs, Japan persimmons are propagated from cuttings and come into bearing in two years. Pears begin to bear in from 3 to 5 years and this is the home of the best. These prairies produce grass to beat the world; will average more to the acre than ten acres in Dakota. There have been thousands of tons of hay shipped this fall at prices that net more cash than a Dakota wheat crop. These are some of the things that strike a Dakota man favorably; could tell you some things not quite so pleasant, but nothing to compare to a straw fire. This country is filling up with Northern people, property is advancing in price every day, and I have the first Northern settler yet to see who wants to spend the winter in Michigan. Horace Greely said, "it is easier to raise a steer in Texas, than to raise a hen in Maine," and I am not sure but it is cheaper to raise a whole herd of cattle here than to pull one old cow around by the horns, hunting for water and fresh grass in Dakota. Do you hear me shout?

You better stop and put in some more straw, and I will hitch up and take a buggy ride, just for fun, and think of you poor fellows up there, pressing your nose against the window glass wondering when the storm will let up, the weather moderate and the cars will come laden with coal.

Nothing but extreme poverty drove me out of Dakota, and how I do thank the good Lord for one spell of poverty and that by contrasting this with Dakota, I can the more enjoy the glorious weather, the beauty of the landscape, etc. How we can laugh at the storm and the coal dealers and the straw pile; how we can luxuriate on the sweet potato, rice, poultry, eggs, sugar and syrup, corn bread, beef at 5 cents per pound, etc., all of home production.

Here, if we can't buy shoes, we can be independent and go bare-foot and never think of freezing.

This is not for publication, and I am not booming the country. If I were, what a story I could tell. If the average Dakota newspaper man was down here and should give rein to his imagination as at home, he would be looking for the Great White Throne and the River of Life, the Streets of Gold and the Pearly Gates. It would be necessary to swathe him in a suit of Dakota winter clothes to keep him from bursting and to put imported ice on his head to remind him of home and enable him to call in his ideas, take his bearings and find out where he really was. If you don't believe it come down and try it.

Yours,

W. J. RANDOLPH.

JOSEPH JEFFERSON'S ORANGE ISLAND,
NEAR NEW IBERIA, LA.

S. L. CARY, Esq.,

NEW IBERIA, La., February 26, 1888.

Dear Sir:—Yours of November 22d was received some time since, but not having had the time to answer it has been deferred until now. Your question regarding the depth of the water ways in this country I will answer to the best of my knowledge. I have not been sailing on the coast for several years, and storms and the tides may have affected the channels more or less since I quit sailing. I will begin at Calcasieu River. The channel at that bar was from three to six feet; since then it has been dredged, and I do not know the depth now. Mermentau River bar is from two and a half to five feet, mean tide four feet. Following the coast eastwardly we come to the southwest pass of Vermillion Bay; outside in the gulf there is twelve feet, inside in the bay there is eight feet, very low tide six feet. Eastwardly again we come to Cote Blanche Bay, where there is eight to nine feet. Eastwardly again is Bayou Sale Bay, with from five to seven feet of water. Eastwardly again is Morrison's cut-off, which is an outlet into Atchafalia Bay, with a depth of eight to ten feet. Atchafalia Bay has a depth of seven to nine feet. We come next to Atchafalia River, which leads direct to Morgan City, with plenty of water. From the Atchafalia River through the Atchafalia Bay to the Gulf is a dredged channel made by the Morgan steamship line.

While speaking of channels and outlets from this part of the country to the Gulf, let me call your attention to one thing: The whole country from Calcasieu to Vermillion Bay is interspersed with lakes and bayous, upon which lie a great deal of fine, cultivable lands (in fact, with a little drainage all can be cultivated). Now, if the Messrs. Watkins & Co. had some one who knew the country as I do, he could cut a canal from the Calcasieu River to Vermillion Bay in a very short time, thus opening those fertile lands to immigration and giving a way for those already there for shipping their produce. As three-fourths of the proposed canal is already opened by natural lakes and bayous, you see it would only require dredging from one to another until we arrive at Vermillion Bay, where it is open to Morgan City. There are a great many farmers and others who live too far from a railroad anxious

to have this canal made, giving them a chance to get their produce to market.

From circulars received from you I infer you are trying to have people emigrate to this country, and you praise it in the highest terms, to which I not only agree, but can add to. Here I was born, raised and have had my being for more than fifty-five years (excepting a visit to Cuba and a short stay in South America and Mexico), yet I feel as young and agile as a boy—seldom or never sick—to which hundreds of others can testify, which certainly proves the healthfulness of the country. I see hundreds of people here from different parts of the North, and they unanimously say they suffered more from heat in the North than here. How can it be otherwise when we have during the whole summer a never-ceasing breeze from the Gulf, which, laden as it always is with the fragrance of many flowers, makes this place a fit abode for the gods. Now, at this season, the 28th of February, our gardens are filled with the finest vegetables. We have, and have had during the winter, cauliflower, cabbage, beets, turnips, celery, green peas and many other things, all grown in our open gardens. We grow most of the fruits of the tropics and nearly all of those of the more northern States. In fact, this is the country of countries, and all it wants is men to develop its resources.

I fear I have already written you too lengthy; but in closing I will say, if I can be of any service to you in any way I will with pleasure, and should you ever come to these parts make it convenient to give me a call. I am managing the stock farm of Mr. Joseph Jefferson. I will gladly show you the country and tell you all I know, or you can refer any of your friends to me. In the mean time I would like to hear of you and how you are succeeding regarding this country. I am with pleasure,

Yours respectfully,

JOSEPH LANDRY.

A REMARKABLE FACT.

Providentially the Southern Pacific holds the key to the situation as regards the sugar, rice and hay industries of the State. Only five years since the Carolinas raised the rice of the United States. At that time the delta of the Mississippi raised the rice of Louisiana. All done by colored labor.

At that time the Southern Pacific Railroad Company put an agent in the field to attract emigration to the prairies of South-

west Louisiana. We induced the men of the Northwest to come, and these men brought with them the improved farm machinery with which they cultivated their lands and made a living—"labor-saving machinery."

There were vast quantities of grass rotting annually. The mower, stacker, gatherer and hay press were brought into use, and to-day thousands of tons find their way over the Southern Pacific to Texas and Mexico.

These men saw the rice crop secured with a hook or sickle, for a harvester. They put a twine-binding harvester into the field, and this season 1,500 machines, capable of harvesting ten to fifteen thousand acres per day, are in the rice fields of Southwest Louisiana. The industry is revolutionized by machinery handled by white men; so that the great rice crop which five years ago was grown by the Carolinas and the Mississippi Delta, is now grown in Southwest Louisiana.

And now the outlook is the same for the great sugar industry. The tendency is to leave the low bottoms, subject more or less to overflow, and take the higher lands that are much easier to cultivate and handle. The first move of importance was made last season, when the agent of the company took samples of prairie-grown cane to Audubon Park for analysis, and Professor Stubbs announced that these samples contained 20 to 25 per cent. above the average Louisiana cane in sugar, or from 14.4 to 16.4 per cent. sucrose. Then thousands of circulars telling these facts were printed by the company and circulated through the Northwest.

The next great step is the erection of a diffusion sugar house at Lake Charles, by a student of Prof. Stubbs, after learning these facts. It is proven that cane grows as well on the prairies as on the bottoms, and is sweeter, lands are cheaper, and white men and machinery will make this industry as successful as they do the rice. And the Southern Pacific Company feel the vast importance and value of these industries to the whole country; having inaugurated this great change, involving questions of national importance, will endeavor to carry it forward to complete success.

The United States supplies of sugar and rice are involved in this experiment, and all indications point to success.

There is enough good prairie land along the line of the Southern Pacific Railroad in Louisiana to furnish hay to the State, and sugar and rice for the United States.

The price of undeveloped land is \$5 to \$10 per acre; improved land, \$10 to \$25.

Will you come and help solve the problem, and develop this new and most valuable country, with the assurance of large profits and of unusually favorable general conditions?

Successful farming is reduced to stock-raising even in the Northwest. Grass is the best form, and warm weather the best time in which to feed stock. "Go South, young man, go South." And when you GO SOUTH, GO SOUTH!

PALMETTO.

This plant abounds in all of the lowlands of Southwestern Louisiana. Here is what the *Baltimore Record* has to say of its value:

THE PALMETTO FOR TANNING PURPOSES.

Editor Manufacturers' Record: SAVANNAH, GA., January 9.

No part of the United States has as much valuable raw material, which is either neglected or unknown, as the Southern States. Much has been written about the saw palmetto, its value as a fibre, and the immense quantity growing wild has been fully discussed, but little has been said about its qualities as tanning material, which are of much importance and of great value.

Leather tanned with palmetto is fully as bright and durable as oak-tanned leather. The hide treated with palmetto will gain as much in weight as if tanned with oak, chestnut or hemlock bark.

My own analysis and that of other chemists show the palmetto contains 11 to 12 per cent. of tannic acid. This compares favorably with hemlock, which contains about 8 per cent., and chestnut bark, which contains 10 to 11 per cent. Oak, the best known tanning material, has only 17 to 18 per cent. of acid.

While spent oak, hemlock or chestnut bark is worthless, the refuse of the palmetto after the tannin has been extracted is worth much more than the cost of the green raw material.

This refuse consists of about 800 pounds of fibre to the ton, and can be used for paper stock, plastering hair, bedding and upholstering material, cordage, oakum, felt, or in lieu of jute for cotton bagging. The commercial value of these fibre products will vary from \$20 to \$100 per ton, and with an unlimited demand.

It is generally conceded that it will take fifteen pounds of oak bark to tan one pound of hide into leather. The average cost of



COTTON FIELD, ST. LANDRY PARISH, LA.

oak bark will be more than \$20 per ton, but at this price it will take fifteen cents' worth to produce one pound of leather. Now this cost is entirely saved if palmetto is used, as the refuse from palmetto is worth much more than the cost of the green plant.

A ton of palmetto, green or partly dried, can be delivered in Savannah for \$5 and even less, and it has tannic acid enough to tan 100 pounds of flint hides. The refuse of 800 pounds of fibre will have a value of one to five cents per pound, netting enough to pay for the raw material and all manufacturing expenses, and even leaving a small margin of profit regardless of the tannin.

While tanners using bark have only a few months to purchase their supply, and are consequently compelled to have much of their capital dormant, the tanner using palmetto can buy his supply from day to day, as he needs it, any month in the year.

Savannah exports annually 50,000 bales of hides, weighing 500 to 600 pounds each. Our present quotations are five and a half cents per pound for flint hides, three cents for salted hides and two cents for green hides. Many of these come back here as leather, for which we pay from twenty-five to forty cents per pound.

With raw hides costing so little, a tanning material which practically costs nothing, a climate where tanning can be carried on the year round, an immense territory and good home markets, where leather can be sold at good prices, with an abundance of common labor which can be secured at low wages, there are few places which offer a more inviting field for tanners than Savannah. Several tanneries now operating in this vicinity have used palmetto with excellent results, so that it is not a theory, but an accomplished fact, as the quality of the leather and financial results have proved entirely satisfactory

C. B. WARRAND.

COTTON.

Cotton is raised to some extent in Southwestern Louisiana, but is not a favorite crop, and of late years, owing to low prices, did not pay, but at present high prices for seed and lint will pay fairly well.

The Northern immigrant does not take kindly to cotton growing; perhaps he may when cotton picking is done by machinery. It undoubtedly pays better than wheat, oats or corn raising in the North. The yield is a half-bale per acre planted in March, cultivated like corn, picked in September, October and November, costing to grow same as corn until harvesting, which costs fifty

cents to one dollar per 100 lbs. The seed is becoming more valuable year by year, is the best feed for stock and the best fertilizer known.

One thousand pounds of seed with each 500 pounds of lint cotton seed is worth \$12 to \$20 a ton. Its uses are numerous; competes with oleo. for supremacy in making good dairy butter.

TIMBER.

Large bodies of excellent timber occupy fully one half of southwest Louisiana. The varieties are almost endless. The quality the very best. Hard pine, cypress, oak, ash, gum and hickory are leading. A very large business in lumber and shingles is done the year round. Men from Michigan are leading. The timber is well located along the rivers, lakes and bayous, is accessible, and lumbering on a large scale goes on summer and winter.

LAKE CHARLES.

BY PROF. S. A. KNAPP.

On the Calcasieu River is the metropolis of Southwestern Louisiana and destined to be the great central city between New Orleans and Houston, Texas, a distance of 360 miles. Look at facts:

1. It has an admirable location on one of the most beautiful lakes in America and upon a river broad, deep and navigable at all times of the year.

Lake Charles (the lake) is two miles wide by two and one-half miles long and through it flows the Calcasieu river. The waters of the lake are clear and its banks are bold, except on the north and southwest, where giant semi-tropical forests do battle with the waves. The Calcasieu River, one thousand feet broad and sixty feet deep, flows from the northeast till within one-fourth of a mile of the lake, where it makes a graceful curve to the west and enters the lake on the western shore. The city of Lake Charles extends from the river upon the north along the eastern shore of the lake to the river upon the south. For beauty of location Lake Charles surpasses every city upon the Gulf coast.

2. It is upon the Southern Pacific Railroad, 218 miles west of New Orleans. The Calcasieu, Vernon & Shreveport Railroad, now under construction, will give an air line to Kansas City.

3. It is a city of 7000 inhabitants, manufactures 650,000 feet of lumber, 320,000 shingles daily; has three banks; four newspapers; nine sawmills; one sugar refinery; the largest rice mill in America; car shops; water works; street railways; electric lights, etc. It is increasing in population at the rate of two thousand per year.

4. Appropriation has been made to improve the harbor at the mouth of the Calcasieu, which will give Lake Charles one of the best harbors on the Gulf of Mexico.

5. It is positively the best location in the South to establish the following lines of manufacture:

First, furniture; second, wagons; third, chairs; fourth, agricultural implements; fifth, cotton or woolen factories; sixth, iron works, engine building, etc.; seventh, it is a place where investments pay; eighth, it is one of the best winter resorts on the Gulf, and has many Northern visitors every season.

6. Lake Charles is essentially a Northern city, wide awake, progressive and modern.

7. Much of the growth of Lake Charles is due to the advantages afforded by the Southern Pacific Railroad and its superior service in passenger and freight traffic.

WELSH, LA.

S. L. CARY, Esq.

Dear Sir:—"In the bend of the bayou she sits snugly ensconced." This is the first line of an article from the pen of a well-known writer, and can be most fully appreciated by the stranger as he approaches the town from the north or northeast. It is a growing town of about 350 inhabitants, and was incorporated under the laws of the State. Situated on the Southern Pacific Railroad in Calcasieu Parish, 195 miles west of New Orleans, 110 east of Houston, and twenty-three miles east of Lake Charles, the parish seat. Located in the forks of two-lovely wooded streams which afford excellent drainage, and in the center of large timber areas and rich prairies extending many miles in each direction, it is certainly an ideal site, considered both from commercial and picturesque points of view. From a simple railway station with two small stores and a blacksmith shop, Northern emigration has developed in four years, three large dry goods and grocery stores, one hardware and furniture store, two drug stores, one restaurant, a meat market, a livery and feed stable, two neat little churches, (Methodist and Congregational) and a public school building of

modern design, thirty by sixty feet, two stories high. And all this has come about with rice as the only money-making farm crop. What it will be when sugar cane, fruit and live stock have been given the same attention, is a matter of conjecture. Men of experience and close observation do not hesitate to predict for the town and country a very bright future. Along both sides of the larger bayou that runs past the town on toward the Gulf is a strip of magnificent hardwood timber, including several of the oaks, hickory, white holly, cypress, sweet gum, and others. From the church belfry, lines of timber can be seen in the east, the north, and the west, but in no case are they less than twelve miles distant, the prairie like a grand panorama spreading out before you. These prairies that in early spring time are covered with lovely wild flowers, and later with luxuriant waving grass, formerly supported large herds of horses and cattle. But as the land has settled up and the farmer fenced in the best grazing lands, and on them planted rice, the stock industry has grown less and less each year. Many high-grade and thoroughbred short-horn cattle have been brought in by Northern settlers. Most of them live, and of these, many take well to their new pastures, while others do not seem to thrive. The Galloways and polled Angus do the best of all the noted beef cattle brought here. They will be fat in a pasture of native grasses, where on the same feed a short-horn will be poor. There is very little attention given on the part of farmers, at present, to improving their beef cattle, but there is the most urgent need for better milch stock. Thoroughbred Holsteins or Jerseys are just as easily acclimated as any cattle, and are sure of producing a handsome revenue for their owners. The time is coming when hogs will be raised here in considerable numbers, but it is not advisable, at present, for a man going on to a new place to bring hogs with him. This is a good place for chickens. Either Egyptian or red rice is a cheap and excellent feed. With a small amount of this feed and a sufficient grass range, hens will lay the whole year, except a short time in midsummer. More liberal rations will fatten them nicely for market. The acreage in rice for the season of 1892 is at least fifty per cent. larger than the year before, and the yield much above an average. Some experiments this season have shown that \$2.50 worth of fertilizer has aided in producing full crops on lands heretofore considered too high for rice. One man in this vicinity has just threshed over 2,000 barrels from 200 acres of such land. Corn is

grown in a small way, mostly by Creole farmers for their own use. The average yield is about twenty bushels per acre. As most of the farming at present is done with oxen, farmers generally buy cotton seed, which is better and cheaper feed. Two small pieces of oats were sown near town last fall. The yield was twenty-two bushels per acre and the quality very good. The result, though not large, shows that, with proper management, much better can be done, and that every farmer can raise his own horse feed. The cultivation of sugar cane has been carried on in a small way for many years. To make syrup and a little sugar for home use has long been thought to be the most that would ever be done in that line. On the 16th of November, 1892, the first car of cane was shipped from this station to the Calcasieu Sugar Co. Without doubt this marks the beginning of an industry that will add very largely to the wealth and prosperity of this section. In fruit raising, little or nothing has been done, except to supply the home table. One man, living within a half mile of the depot, has set out over five hundred trees, and will plant more each year, intending, eventually, to make it a special business. The thrift and vigor of the trees, the color and flavor of the fruits that are grown, is proof that the soil and climate favors horticulture in its highest forms. Most prominent in the large and growing list are figs, pears, peaches and plums. Of the latter, the Japanese varieties are very promising. They are larger in size and better flavored than many of the California plums that have retailed here at five cents apiece. Oranges are a success under proper conditions. Six miles south of town is an orchard that is now supplying the home market with excellent fruit. Keep an eye on the fruit industry at Welsh.

Yours truly, C. M. FIELD.

JENNINGS, LA.

Jennings received its name and location from the building of the Southern Pacific Railroad, its name from a builder of the road, Jennings McComb, and its location by virtue of a divide on the high rolling prairie, giving the town a high, dry and commanding position on the largest prairie in the State. The first station agent was S. L. Cary, from Howard County, Iowa, who came to Jennings Feb. 7. 1883, and took the office April 1. Jennings then consisted of four buildings, depot, section house, one dwelling house and store, owned by A. D. McFarlain. The prairie around in all directions was either United States or State land.



TRAMWAY NEAR LAKE CHARLES, LA.

The station business was from \$250 to \$400 a month. This was the beginning of an immigration from the North and Northwest, amounting to fully 10,000 people at this time. Cary was station agent about four years, putting in all his spare time in advertising this country by sending letters, circulars and books to his Northern friends, and was so successful that the Southern Pacific Company promoted him to Northern Immigration Agent for the company, with headquarters at Manchester, Iowa. He has given full information, has accompanied all excursions, distributed millions of circulars, maps and books, has seen all the prairie region taken by homeseekers, most of whom are from Iowa, giving the settlement the name of the "Iowa Colony," of which he is president. Jennings to-day has nearly 1,000 inhabitants, a freight and passenger business of \$3,000 to \$4,000 monthly. Will ship 1,000 carloads of rice of 20,000 pounds each, 1892-93 (see table published herewith). Has one bank with \$40,000 capital, with another organizing. A newspaper, graded high school, three churches, two sawmills (capacity 20,000 feet daily), planing and two shingle mills, feed mill, livery, two drug stores, two shoe stores, restaurant, millinery, three groceries, three general stores, four hotels, and over two hundred buildings of all kinds. More attention has been paid to fruit growing here than elsewhere in Southwestern Louisiana, 10,000 pear trees and as many more divided among figs, peaches, plums, oranges, olives, persimmons, and many nut bearing trees, pecans, English walnuts, as well as berries and fine gardens. The city is headquarters for the Iowa Colony, being a Northern village on Southern soil. It puts on Northern style, and on its streets you can shake hands with people from every and any State north of Mason and Dixon's line, and they like to meet you, and are, if possible, more agreeably social since breathing Southern air. They seem to be on better terms with God and themselves since landing in this genial clime of easy conditions. The history of Jennings is the history of Southwestern Louisiana. All its towns and cities have partaken of the same general thrift and spirit. There has been no boom, and we hope there will be none. The country is a marvel of success, and whatever our hands have touched has prospered. The assessed value of our Calcasieu Parish has risen from \$1,000,000 to \$6,000,000, and a large industry has been secured to this Southwestern Louisiana by the introduction of a twine-binding harvester to the rice fields, by an Iowa-Jennings farmer, Maurice Brvne. The health of the

place is remarkable, as a visit to our beautiful cemetery will show. We are a church-going people, enterprising, wide awake, progressive. Our wants are capital, a rice mill, sugar mill, cannery, wagon factory, furniture factory, brick-maker, sash, blind and door factory. Will furnish ample grounds for a college or university, and are always in the market for anything for the good of the city or country.

LAKE ARTHUR, LA.

The Lake Arthur region deserves special mention. Four years ago it was only a wide prairie, covered with stock, not a single Northern man south of Jennings. To-day the town has inhabitants enough to incorporate and will do so this winter. It has good schools and churches, will build a high school building at once, has good business houses, a live newspaper and the best hotel in Southwestern Louisiana. A railroad is all they need to make it a splendid town, and their prospects for that are very encouraging. Large farms have been opened up all along the lake, clear to Bayou Lacacine, and for miles north and west large orchards of pears, plums and peaches have been planted and are doing extremely well. Beautiful homes, surrounded with all kinds of fruit trees and shrubbery, that would take from eight to ten years to build up in the North, now cover the prairie, the effort of only from three to four years. This year there have been raised within a radius of ten miles from the lake, over 10,000 acres of rice, averaging twelve barrels to the acre. Sugar cane is being cultivated to a considerable extent. Corn, Irish and sweet potatoes do well. Land is selling at from \$7 to \$10 per acre. Parties visiting the South should not return without going to Lake Arthur and looking over this beautiful section. Yours truly,

E. L. LEE, Lake Arthur, La.

SHELL BEACH, LA.

S. L. CARY, Esq.

Dear Sir:—For answer to your kind favor would state that to any party having work-stock we will build a house and pasture. Any amount of land required will be furnished. There are about 25,000 acres to pick from. The seed required will be advanced, same to be returned after harvest. A complete pumping outfit will be rented at cost for the purpose of irrigating the rice field. We pay our share of threshing and furnish our share of sacks. We ask as our share one-fourth of the total crop.

Yours truly, J. P. GUEYDAN & SON.

ACADIA PARISH, LA.

SOME FACTS ABOUT ACADIA PARISH, THE CENTER OF THE GREAT RICE-RAISING DISTRICT OF LOUISIANA, AND ITS BUSTLING, BUSY AND GROWING CAPITAL, CROWLEY, THE TOWN THAT IS KNOWN ALL OVER THE UNITED STATES AS THE "QUEEN CITY OF SOUTHWEST LOUISIANA." IT HAS EARNED THIS DISTINCTION AND WILL KEEP IT.

Seldom in the history of any State outside of a mining district has a town had such a rapid, substantial and sure growth as this town has experienced. Seldom in the history of any agricultural section has a country or parish made such rapid strides as Acadia Parish in the last five years. Seldom in the history of any country has its residents found themselves so suddenly and surely lifted from poverty to affluence as have the people of Acadia Parish and the residents of Crowley, La.

To one who has not marked its progress, step by step, the results of five years of labor by its founders, W. W. Duson & Bro., in developing this country and building up this town seems almost beyond belief. Eight years ago the parish of Acadia had never been heard of, having been created from the undeveloped portion of St. Landry Parish in October, 1886, and not until two or three years after did its founders, W. W. and C. C. Duson, conceive the idea of building what is the present city of Crowley. How well they have succeeded is shown by the following facts:

Previous to the founding of the new parish this section of the country was held in very poor repute. Lands were of no value—from twelve and one-half cents to one dollar per acre—and money was almost an unknown quantity, groceries and supplies being purchased by cypress pieux, Creole ponies, etc.

The native settlers here lived in small houses built from logs or lumber split from the trees by their own hands, and a stove or window in the house was never heard of. A man that owned 500 acres of land was considered to be worth \$250.

But a wonderful change has taken place in five years, and a still more wonderful transformation will be seen in the next five years to come. These same people whom you saw living in houses with mud chimneys and board shutters for windows, many of them, to-day have modern residences, productive farms under a high state of cultivation and supplied with all modern improved machinery; ride in their carriages, have money in the bank, and yearly dispose of from one to four and five thousand dollars' worth of products from their farms.

You ask: What has brought about this change, and what is it that will enhance the possessions of these people and make them the envy of a continent in the next five years? What is it that has raised the value of lands in and around Crowley from twelve and one-half cents to fifteen and twenty dollars per acre? We answer, the culture of rice. And why should the farmer of Acadia Parish who raises rice receive so much *larger* returns for his labor than the farmer of Dakota who raises wheat and oats? The question is answered, by the law of supply and demand.

Why are diamonds so valuable? Because they are scarce and are produced in a very limited section of country. Rice also can only be produced in a limited area of the United States. Few diamond fields and few rice fields. The demand for this cereal is constantly on the increase, and will be for the next fifty years. Compared to wheat, oats, barley, beans, potatoes, meat, or any other staple article of food, rice at the present price is $33\frac{1}{3}$ per cent. cheaper than any other food, and as its value as an article of food becomes known, so will its consumption and its demand increase.

But never, until the Gulf stream changes its course and runs up the Mississippi river, will the extent of country in which it can be raised be extended, so we need never fear an overproduction of this cereal.

Facts taken from the most carefully compiled statistics bear us out in saying that if every acre of land in the United States that will produce rice was planted with this cereal and an average crop raised and milled, with fair milling and shipping expenses added, and then the product placed on the markets of the United States on a basis of three dollars per barrel for rough rice, it would not be as much as we consume; in other words, the United States can never supply its own demands.

Now, when the consumption of this article doubles, does it not stand to reason that if the supply is not increased the article itself must increase in value, and at a corresponding rate the lands that produce the rice will be enhanced in value? Hence we say that Acadia's lands are bound to keep increasing in value; and the man who buys these lands at from seven to twenty dollars per acre, their present price, has bought a gold mine that he knows not the value of.

If lands in the State of Illinois that produce fifteen bushels of wheat per acre, valued at \$1.00 per bushel, are worth \$45 per acre,

they have produced $33\frac{1}{3}$ per cent. of their value. Then the lands of Acadia Parish that produce fifty dollars' worth of rice per acre are worth, according to the same figures, \$150 per acre, instead of from seven to twenty; but this is the difference in farming in Acadia Parish and some of the Middle and Northern States.

In the State of Ohio they raise wheat on lands that are worth from fifty to sixty dollars per acre, and get from twelve to fifteen dollars' worth of wheat, while we in Acadia raise rice on lands that are worth from twelve to fifteen dollars, and get from fifty to sixty dollars' worth of rice. With one-fourth of the capital invested we get four times the returns. While they are frozen up six months in the year, eating up what they earned the other six months, we work the whole year round with no loss of time, under the most genial skies and balmy climate known to man. It is a fact that lands are worth whatever they will pay a reasonable rate of interest on after the expenses of raising the crop is taken off.

The American people are not slow to take advantage of a good thing when they see it; neither are they slow in catching the spirit of the times, and it has just dawned upon them that in these rice lands of Southwest Louisiana lies the greatest *bonanza* in the way of agricultural lands on the American continent to-day. In no section of the United States can a man buy land and engage in farming with so small an outlay and reap such large and sure returns as here. In no section of the United States can the capitalist find so promising a field for the investment of his money as here.

Men of capital and energy are needed to develop the wonderful resources and industries of this country. Men with business experience and energy are needed to carry out the good work already begun. Factories and manufacturing establishments are wanted to work up the raw material that is produced in abundance here and will some day prove a mine of wealth to the party establishing such industries; and, above all, farmers with brains, muscle and money are needed to buy up and till our vacant lands, and they are coming, too. Realizing that the earlier they come, the better chances they will have for investments, they are coming from the North, the East, the West—coming faster than they ever poured into any agricultural section before.

As an index of how rapidly this country is filling up it is only necessary to say that five years ago there was hardly a farm

fenced in, in the parish. In the year 1889 Crowley shipped 12,000 barrels of rough rice, at an average value of three dollars per barrel, making \$36,000. Of the year 1890 we are unable to furnish the exact amount, but it was more than doubled. In 1891 Crowley shipped 80,000 barrels of rice, or 420 carloads, valued at \$240,000. For the first four months of the shipping year of 1892 Crowley's shipments of rice were as follows: September, 4,999 barrels; October, 36,925; November, 60,793; December, 53,859. Total number of barrels shipped to January 1, 1893, 156,576, or 740 cars. A conservative estimate places the balance of this year's crop still on hand and ready to be shipped at 100,000 barrels, making a grand total of 1,240 cars, or 256,576 barrels. At an average of three dollars per barrel this would give the enormous sum of \$769,728; and this from Crowley alone, which five years ago was an unbroken prairie. The town of Rayne, six miles east, has shipped about half as much. This wonderful increase in the rice industry is fully equaled by every other branch of business.

The following careful and liberal estimate will show something of the profits to be derived from rice culture:

Take 160 acres of land, at say \$15.....	\$2,400
House and stable	500
55 barrels of rice seed at \$3.....	165
A hired man, say six months, at \$20.....	120
Two spans of mules and harness at \$275.....	550
Machinery and wagon, say,	250
Feed for team	125
Board for hired man, 6 months	72
Fencing	250
2,240 empty sacks for rice at 10 cents.....	224
Threshing 2,240 sacks at 10 cents.....	224
Other expenses, threshing, etc.....	100

Making a total cost for land, fencing, expenses, etc. \$4,980

Now as to the results, 160 acres of rice at fifteen barrels to the acre would be 2400 barrels, at \$3.00 per barrel, this would be worth \$7,200. This would leave the farmer, after paying for the land and fencing it, building his house and buying his team and machinery, paying for his seed, and all other expenses possible on a farm of this size, \$2,220 in clear money. This is not farming on paper but is actual results as shown by hundreds of different men who have come here and engaged in this industry in the past five years.

A few words in explanation of how rice is raised would not be amiss. We know so many living in the North the words rice

farming conveys the idea of living in a swamp or marsh; this is far from true, and could they see some of our rice plantations with rice growing in one field, and just across the fence, or perhaps the road, another field of cotton, sugar cane, corn, or perchance an orchard of peaches, figs or oranges, this idea would no longer exist.

Rice is raised on any level land, the land is plowed and fitted as for wheat or any other small grain, after the rice is sown, then commences the work of leveling the land, which is done with team, and large plows having long mould-boards with which the land is thrown up in ridges from one to two feet high all the way around the field; this is done to hold the water on the young rice while growing. In ordinary seasons the rainfall is sufficient for this purpose, but farmers usually provide against a drouth by storing up a supply of water in the gulleys, streams and ponds. When rice is fully grown and maturing, these levees are cut and the water allowed to run off, so the land will become dry and hard by harvest.

Rice is harvested with self-binding machines, and threshed with steam threshers, the same as other grain; it is then sacked and shipped to the rice mill. Rice is always sold and handled by the barrel—162 pounds make a barrel of rice. From twelve to twenty barrels are usually raised on an acre; the average price for the past four years has been \$3.00 per barrel, oftentimes going as high as \$4.50 to \$5.00; thus it may be seen that an acre of rice will, under favorable conditions, produce from \$35 to \$80, say an average of \$50. We have known a great many instances where men have raised twenty barrels to the acre and sold at \$5.00 per barrel, thus producing \$100 per acre, and that, too, where the land was valued at only \$5.00 per acre; but these cases are exceptions.

Freight and passenger receipts at Crowley, not including pre-paid freight that was delivered at Crowley, or rice that was shipped away, was as follows:

September	\$7,602.47
October	5,732.94
November	5,571.71
December	5,941.34
	<hr/>
	\$24,848.46
If we add the freight on rice	78,288.00
156,576 sacks shipped during these four months gives,	<hr/>
not including prepaid lots,	\$103,136.46

The real estate firm of W. W. Duson & Bro. has done a business during the year aggregating \$500,000. Below we give the business of four of our largest dealers:

D. R. January, general machinery agent and rice dealer..	\$175,000
Roos Kaplan & Co., general merchandise.....	150,000
H. W. Carver, general merchandise.....	125,000
Jake Frankle, general merchandise.....	125,000

Below we give some crop statistics of Acadia Parish for the year 1892:

700,000 barrels rice, valued at \$2.50 per barrel.....	\$1,750,000
500 acres in sugar cane, making 1008 barrels of molasses, valued at.....	15,120
410 hogsheads of sugar, valued at	3,075
Cotton, 1,500 bales, valued at.....	67,500
Corn, 209,600 barrels, valued at.....	149,800
Oats, 15,000 bushels, valued at.....	7,500
Potatoes, 200,000 bushels, valued at.....	100,000

Acadia Parish has a population of 15,000 people; Crowley a population of 1500.

As we have said before, this wonderful advancement has not been confined to rice culture alone; the town of Crowley has kept even pace with the country surrounding it, and grown in five years, from merely a thought in the minds of its promoters to a busy, thriving, bustling little city, that from its size, its beauty, its notoriety, and the volume of business it does, it can well afford to be envied by towns five times its age.

The rapid growth of Crowley, in fact the wonderful development of Southwest Louisiana has been augmented by, and is largely due to the efforts of Messrs. W. W. Duson & Bro. who founded the town, and have for the past five years been conducting one of the largest real estate businesses of any firm in the South. Contrary to the average real estate man, they have pursued an open, liberal policy in the management of the growth of the town and parish; they are men of broad ideas and views, and consider nothing in the way of advancement too good for their town; they have established a reputation for square and honest dealing in every State in the Union.

To the home seekers and capitalists we say, if you are contemplating a change in your location, we can recommend Acadia Parish, La., as a place where your brightest dreams and your most sanguine hopes will come nearer being fulfilled and realized than in any other spot on earth, and we can recommend the town of Crowley

as one of the brightest and most progressive towns of the South to-day. Here you can find good public schools, churches, a college, and good society, a kind and intelligent people, made up largely of your own people from Northern and Western States, and you will come nearer getting a fair return for your labor and capital than in any place we know of. If you wish any information about the lands of Acadia Parish, or the many chances of investing money in the thriving town of Crowley, where every dollar that has been put in has doubled every year, write to W. W. Duson & Bro. They will tell you facts just as they exist; if you wish to go South they can get you as low railroad rates, cheaper board and better accommodations for less money than any one else.

If you visit Southwest Louisiana, call on them and they will show you all over the country in good conveyances, free of charge, and make your stay in that beautiful country a pleasant one indeed; and if you invest in their real estate you will never regret it, and if you do not you cannot help but say that you saw the finest country on the American Continent, and that you met gentlemen, and were well treated.

Respectfully, C. L. CRIPPEN.

LA FAYETTE, LA.

La Fayette, La., is situated on the Southern Pacific Railroad, 144 miles west of New Orleans, and makes an important division of that gigantic railway trunk line. Connection is here made with what is known as the "Alexandria Tap," a feeder of the Southern Pacific System that communicates with the Texas & Pacific Railroad at Cheneyville, La.

The Southern Pacific Company has located at this point an extensive railroad yard, as also one of its principal roundhouses, besides a workshop, a capacious freight depot, a storehouse and other minor buildings and conveniences; all of which gives to La Fayette more than ordinary importance as a railroad center, present and prospective.

The subject of this article is the county seat of La Fayette Parish, the acknowledged garden spot of Southwestern Louisiana. Previous to 1880, when the Morgan Railroad (now forming a division of the grand Southern Pacific Railway System) was constructed through this country, the town of La Fayette, with its handful of population, remained practically unknown to the outside world. However, the wonderful natural resources of the

country tributary to La Fayette were soon effectually stimulated and developed under the beneficial influence of the railroad until it has gained its present creditable and enviable position and importance in the business world, without having had at any time a single agency or circumstance to "boom" it.

The population of La Fayette now numbers 3,000 souls, and a continuation of the natural and healthy growth that has characterized the progress of this little city in the past, is assured for the future.

Among a large number of business houses and other institutions that would do credit to a community of greater pretensions than La Fayette, may be mentioned a substantial and attractive brick and iron bank, regularly chartered and doing a prosperous business; the handsome and capacious railroad hotel, operated by the Crescent News and Hotel Co., that justly enjoys the reputation of being one of the very best houses of its kind in the State; a commodious and well appointed high school building, awaiting completion, to be launched in the good work of education; Mount Carmel Convent, a Catholic educational institution, occupying a whole square of ground, arranged and distributed so as to make it one of the attractions of the place; substantial and imposing public buildings. Church edifices are owned by the following denominations: Catholic, Methodist, Presbyterian, (Episcopalians worship in this church), Israelites. The negroes worship in separate churches of their own. La Fayette also possesses several mercantile establishments doing a business of from \$50,000 to \$100,000 a year, and three extensive lumber yards. The *La Fayette Advertiser*, one of the oldest newspapers in the South, was purchased in the beginning of this year by a syndicate of home business men, and occupies the front rank in liberal and progressive journalism.

Three of the largest manufacturing concerns of agricultural implements in the United States (Osborne, McCormick, Deering), recognizing the value and importance of La Fayette as a distributing point for Southwestern Louisiana, have established general agencies or depots here. The Waters-Pierce Oil Co., for the same reason, has had erected an oil depot at this place.

Of the fertility and general desirability of the lands of the Parish of La Fayette too much cannot be said, and the climate and health of the country is most excellent. The soil is extremely rich as a rule, and has remarkable depth. The principal products

of the country are cane, cotton, rice, corn and potatoes (sweet and Irish). Many other things could be profitably raised. Jute, ramie, barley and tobacco grow well here, as also such varieties of the domestic grasses as clover, red-top, millet, alfalfa and Japan clover. All of the esculents grow to perfection and could be cultivated with profit, if truck farming were engaged in to a great enough extent to justify the railroads in making special preparations for handling this particular line of traffic. Such fruits as peaches, pears, plums, apricots, figs, etc., do well, and a variety of berries grow wild in abundance.

A business men's association has recently been organized in La Fayette for furthering manufacturing and other enterprises and advance the general condition of the country. One of the first undertakings of this association will be to secure the building of a railroad from La Fayette to Abbeville, La., and from thence to deep water in Vermillion Bay. Forming a part of this railroad project also, is the erection of two important manufacturing industries, viz., a central sugar refinery, and a cotton factory that shall employ no less than 150 operatives, and to this end a bonus of \$10,000 and \$20,000 respectively will be offered for the establishment of these enterprises.

La Fayette offers an excellent opening for an ice factory, a furniture factory, and a sash, door and blind factory. Outside capital would find ready and profitable investment here and a hearty welcome.



RICE FLUME ON PRAIRIE MAMON.

JEANERETTE, LA.

S. L. CARY, Esq.

Dear Sir:—The second largest town in the Parish of Iberia is situated on the Bayou Teche and also on the Southern Pacific Railroad, nearly equi-distant between New Orleans and Lake Charles. It has a population of 2,000. Twelve miles to the west is the parish seat, New Iberia, and fourteen miles east is the parish seat of St. Mary's County, Franklin. It is also surrounded by numerous small towns and villages adjacent. A fine line of passenger and freight steamers ply regularly to New Orleans, and the Southern Pacific Railroad in connection has several steamers of its own plying to Morgan City, there connecting with the Gulf ports. The place is also connected by telephone to all surrounding towns and sugar refineries, being situated in the heart of the sugar belt, and only eight miles direct to the Gulf of Mexico. During the grinding season the whistles of twenty-seven sugar houses and refineries can be heard any morning. Within the town the large Vaufrey Refinery is situated, producing this year (1892) nearly 3,000,000 pounds of sugar, and in sight of the town the three other large refineries of Linden, Right Way and Union, producing upwards of another 4,000,000 pounds. Outside of the cities of New Orleans and Shreveport, we have the finest and largest foundry in the State, and ice works. There is more freight handled here than any other place in proportion in the State. The railroad company, with its already large depot, was compelled to put up another addition of 100 feet to handle its fast-increasing business. It has three churches, Catholic, Methodist and Presbyterian; the former predominates. Two schools, one convent and public schools, a system of water works, a fine fire department, steamer, hose reels, hook and ladder companies with good engine building, neat little opera house, and good markets. What this place and surrounding country needs is immigration. A national bank would be quite a necessity, also a newspaper and job printing establishment, and it would be a good opening for wood working machinery. It has two large saw and shingle mills and cooperage works.

T. C. AKERS.

THE RESOURCES OF VERMILLION PARISH.

LOCATION.—Vermillion Parish borders on the Gulf of Mexico, and lies between $29^{\circ} 30'$ and $30^{\circ} 10'$ north latitude; the 15th meridian of longitude, west of Washington, passes through this parish. It is forty miles long by forty miles wide, of irregular width, and contains about 1,600 square miles area. It is bounded on the east by the Parish of Iberia, on the south by Vermillion Bay and the Gulf, on the west by Cameron Parish, and on the north by La Fayette and Acadia Parishes.

PHYSICAL GEOGRAPHY.—The parish is mostly prairie, level and gently undulating, nowhere rising into hills or sinking into gullies. It is easily drained. The parish abounds in beautiful lakes. Vermillion River, affording tide-water navigation throughout the year, traverses the whole length of the parish from north to south, emptying itself into Vermillion Bay.

CLIMATE.—The thermometer averages 87° in summer, sometimes it runs up to 90° , rarely to 95° . In winter it rarely falls to 30° .

SOIL.—The surface is a rich clay loam, of a black color, from a depth of six inches to one foot; underneath is a stratum of light clay gradually changing to yellow. It is more fertile on the river than in the prairie, yet both yield remunerative crops to those who cultivate it. It needs but little fertilizing to keep it in good condition.

CROPS AND FRUITS.—Sugar cane, cotton, rice, broom corn, tobacco, sorghum, grass, corn, oats, sweet potatoes, peas, etc., grow well. Sugar cane on new land will yield from fifteen to twenty tons per acre; at \$3.50 per ton, this would be, at the lowest estimate, \$50 per acre. Here the peach, pear, plum, and a few varieties of apples, flourish. The orange, fig and pomegranate do well. Nuts of various kinds grow throughout the bounds of the parish. Berries rarely do better elsewhere.

DAIRYING.—The people give no attention to this occupation

TIMBER.—On Vermillion and Mermentau Rivers, Bayou Que Tortue, Coulée Kinney, and Gross Isle Coulée are considerable quantities of timber suitable for fuel, but for fencing purposes it is very scarce. For buildings it must be brought from the Parish of Calcasieu, and Bayou Teche at various prices, ranging from \$12 to \$20 per thousand feet.

FENCING.—The barbed wire has revolutionized the old system of fencing.

LAND AND PRICES.—The lands in the prairies are more abundant and cheaper than on the bayous. Prices range from \$5 to \$50, according to locality. In the last five years, lands, as emigration has come in, have greatly advanced in value. White, Broussard & Greene, a real estate agency at Abbeville, may be addressed for all information needed in this line.

VERMILLION RIVER.—Running from north to south, a little east of the center of the parish and west of the 15th meridian, is the Vermillion River, one of the prettiest streams in Louisiana. This stream is navigable at all seasons for the largest steamboats from La Fayette to its mouth. It is above overflow, and does not connect with the Mississippi River. The work of dredging the river is now going on, the last Congress having made an appropriation for that purpose. The banks of this river are heavily wooded, and during six months of the year Vermillion River flows its clear waters through a channel with banks of evergreen. The river is from twenty to forty feet deep.

ABBEVILLE.—This is the name of the seat of justice. It is located on Vermillion River. It has a population of 1,200. It has one of the finest court houses in the State, as also a brick jail. There is a Catholic and Methodist church for the whites, and two for the colored. There is a convent and three public schools affording educational facilities for all. A high school is agitated. Seven lawyers and six physicians are domiciled here. Two weekly papers supply the reading public with the current news. There is one hotel and several private boarding houses, three drug stores, and ten business houses selling dry goods and groceries. All other pursuits and callings are well supplied. A sugar refinery, a rice and oil mill would be profitable investments.

POPULATION, RELIGION, ETC.—A large proportion are the descendants of Acadian refugees from Nova Scotia. To this class must be added a large number of Americans from the Middle and Northern States, who are here to stay and improve the country. The Americans are Protestants, but nearly all the French are Catholics. Public schools have been opened in every neighborhood and run for ten months in the year.

CATTLE AND SHEEP.—This is a most excellent locality for raising fine stock, but few, if any, have engaged in it.

WATER.—Stock water is plentiful, but for the inhabitants cisterns and wells must be supplied.

GAME.—There are plenty of partridges, squirrels and hares; geese, brants and ducks flock to the seacoast by the millions during the fall and winter. Woodcocks come and spend this season here. Wilson snipe, plover, curlews and Bartramian sandpiper are also to be found abundantly.

FISH.—Fish and oysters are abundant along the seacoast, in the bays, and in the salt water bayous.

HEALTH.—A healthier country cannot be found. The climate is said to be especially favorable for the relief of those afflicted with pulmonary diseases.

SEASHORE.—There are several high ridges which do not suffer from inundations. These are very favorable for pleasure resorts.

RAILROADS.—The Southern Pacific has extended a branch from New Iberia to Abbeville, the parish seat, with a prospective extension westward to Lake Charles at no distant day. Another road is now proposed from La Fayette to Abbeville, and from thence to the Gulf. There is a steamer daily employed on the waters of Vermillion River.

INDUSTRY.—The people are not a manufacturing, but agricultural people; however, there are two refineries on Vermillion River.

GOVERNMENT.—The government is now well administered, and gives renewed energy and satisfaction to the people.

TRAVELING EXPENSES.—It is 146 miles from New Orleans to Abbeville, and the price of a ticket, \$4.60. Freights by rail will be the same as before, as per rail and steamer. The schedule of prices may be had by applying to the freight office at the depot at Abbeville.

VALUE AND PRICE OF LAND.

In Southwestern Louisiana the value and price of land has borne no proper comparison. Up to this date the United States and the State have both held large bodies of land to be given as homesteads, and the State land being held at the nominal price of $12\frac{1}{2}$ to 75 cents per acre has, to a large extent, governed prices. Now the prairie lands are all in second hands, timber lands only remaining with the Government. Notwithstanding these conditions, prairie lands have advanced in price to an average of \$8 per acre, unimproved, and \$12 per acre, improved, with a range of \$5 to \$100 per acre, dependent upon location and condition. These prices are believed to be lower, considering climate, products and general conditions, than elsewhere, and must, in the very nature of things, go much higher in the immediate future. Grass, fruit, sugar, rice and products of the temperate and semi-tropical climates, an abundant rainfall, early and late seasons, sea-board markets by rail and water, healthfulness, volume of timber, enterprise and prosperity of its people—all point to much higher prices for real estate. It requires but a glance to see that present prices are far below the value. First, the percentage they will pay (other things being equal) should determine the price. Lands paying \$5 net per acre the price would be \$100 per acre.

In England government securities pay two per cent. at par or £2 per £100; land paying £1 per acre brings £100 and the ownership of land carries the higher position. The landlord is the aristocrat of Europe; but in America government bonds at three per cent. are par, while lands in some States paying \$5 bring \$100 and in other States the price is little different from the annual rental. Coming from a State where land, selling at \$100 per acre rented for \$4 to \$5, just imagine the feelings of a man, who in Southwest Louisiana ten years ago was offered land at $12\frac{1}{2}$ cents to \$1.25 per acre that grew \$20 to \$100 per acre in rice and \$50 to \$100 in sugar, at a profit of \$10 to \$50. It fairly took a man's breath and the effect in many cases was just the reverse of the natural. Do you wonder that the first question was: "What's the matter?" That question is in part answered by the great prosperity of the people and by enhanced prices, and will be fully answered when these lands take their proper position in price with other countries.

WHICH IS BEST?

SUGAR CANE averages twenty tons per acre. Averages 200 pounds of sugar per ton. Costs the farmer \$40 per acre. Costs \$2 per ton of cane. Costs \$1 per ton to manufacture. Then one ton of cane costs to grow and manufacture \$3, and gives the manufacturer 150 to 200 pounds of sugar, depending upon the quality of the machinery and intelligence of the laborer. Present price of sugar on plantation three to four cents.

RICE gives an average of forty bushels per acre. Costs an average of \$10 per acre. Sells at a little more than wheat and gives an average crop of four times as much.

WHEAT, OATS ^{AND} CORN in the North cost \$5 to \$7 per acre; average value of crop \$5 to \$10 per acre.

LOUISIANA has an abundant rainfall—water is the foundation of all agriculture. Has not lost a general field crop in 100 years—seed time and harvest last all the year. Offers health to the sick, wealth to the poor, an easy living to the over-worked people of severe climates. Offers good timber lands at 75 cents per acre; good prairie lands can be bought on terms at \$5 to \$10; good rice lands at \$5 to \$15; sugar lands at \$10 to \$50; orange lands at \$5 to \$50. Grows the finest qualities of oranges on cheap lands; no irrigation necessary. Season of ripening October to February. Has the first thirty days of the market—worth all the rest of the year.

“Go West, young man,” means to *unify* your crops.

“Go South, young man,” means to *diversify* your crops.

Railroads, like great rivers, should run north and south.

When the great Northwest and the silver mines all forsake you, then Louisiana will take you up.

For further information, books, maps, circulars, and rates of transportation, apply to S. L. CARY, Northern Emigration Agent, Manchester, Iowa.

Choice Lands in Texas.

THE RAILROAD SYSTEM OF TEXAS having brought into easy access the lands originally granted the Houston & Texas Central, Galveston, Harrisburg & San Antonio, Texas & New Orleans, and Gulf, Western Texas & Pacific Railway Companies, they are now offered to the public on terms and at prices such as to put them in reach of every person desiring to own his homestead.

Lands for the farmer, the planter, the gardener, the stock-raiser, and millman, which will be sold at reasonable price, on long time, and at low rate of interest.

There is a wide field here from which to select, embracing such a variety of lands that there is no reason why all should not obtain locations suitable to their particular ideas and desires. There is ample room for an almost unlimited number of energetic people, as Texas is a State that can not be equaled in the proportion of acreage adapted to the highest degree of cultivation; all it needs is population. The low price of lands, great fertility of soil, low rates of taxation, and munificent educational endowments, are inducements that no other State can offer.

For detailed terms of sale, prices, information, maps, and pamphlets, address

C. C. GIBBS,

Land Commissioner,

HOUSTON, TEXAS.

